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RUDIMENTS OF MUSIC

BY

STEWART MACPHERSON

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"Form in Music," "Music and its Appreciation," "Melody and
Harmony," "Studies in the Art of Counterpoint," etc., etc.)

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INTRODUCTORY.














- 1.—**Musical sound** is the result of regular and periodic vibrations of air.
- 2.—The varying height or depth of sound is caused by the difference of the rapidity of these vibrations, and is called the **pitch** of the sound.
- 3.—The **loudness** or **softness** of a sound depends upon the size, or amplitude, of the vibrations. This is called the **force** of the sound.
- 4.—The **quality** (or '*timbre* ') of a sound depends upon the nature of the vibrating body (i.e., the medium by which vibration is set up, whether string or column of air) ; and also upon the presence, in greater or less degree, of harmonics. (See Appendix A.)
- 5.—The indication, in writing, of musical sounds requires :—
 - (i.) **Notes**—to express *duration*.
 - (ii.) The **staff**, or **stave**
 - (iii.) **Clefs**
 } to express *pitch*.

CHAPTER I.




Duration of Sounds.—Notes.

1.—The **relative duration** of musical sounds is made clear to the eye by signs of varying shape called **notes**.

2.—Those now commonly in use are as follows :—*

	,		Semibreve, or whole-note.
	,	or	 Minim, or half-note.
	,	or	 Crotchet, or quarter-note.
	,	or	 Quaver, or eighth-note.
	,	or	 Semiquaver, or sixteenth-note.
	,	or	 Demi-semiquaver, or thirty-second note.
	,	or	 Semi-demi-semiquaver, or sixty-fourth note.


























3.—Each of the above notes in order is, in duration, half the value of the preceding ; in Germany and America it is customary to describe each note according to its numerical value (whole-note, half-note, etc.), a plan that

* In old music, other kinds of notes were used, three only of which need be mentioned here, viz., the *Large* , the *Long* , and the *Breve* (i.e., short) 

This last sign is even now occasionally met with, especially in church music. See also the Fugue in E, No. 33 of Bach's "Das wohltemperirte Clavier" (8th bar).

has much to recommend it ; in England, however, the terms semibreve, minim, etc., are generally used.*

4.—The values of the various notes in relation to one another will be clearly seen by the following example :—†

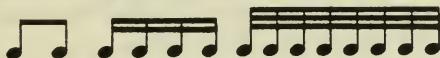
					
One	Two	Four	Eight	Sixteen	Thirty-two
					
One	Two	Four	Eight	Sixteen	Thirty-two
					
One	Two	Four	Eight	Sixteen	
					
One	Two	Four	Eight		
					
One	Two				
					
One					
					
One					

* In France, the notes are called respectively Ronde, Blanche, Noire, Croche, Double Croche, Triple Croche, &c.

† It must be carefully borne in mind that the above notes represent merely the *relative* duration of sounds, the *actual* duration of any particular note depending upon the speed at which the music is to be played or sung. In this way, a semibreve or minim in a quick movement might very well occupy less time than a crotchet or quaver in a slow one, and so on.

5.—It is immaterial whether the stems of minims, crotchets, quavers, etc., be turned up or down ; although this is frequently regulated, for appearance sake, by their position on the *Staff*. (Chap. II, Sec. I.)

6.—When two or more quavers, semiquavers, etc., occur in succession, it is usual for them to be **grouped together** on one tail, thus :—



Such groupings are inseparably connected with the question of *Time*, and will be fully considered later. (Chap. V.)

7.—The duration of any note may be increased by adding one or more **dots** after it* ; a single dot augmenting its value by *one-half*, e.g. :—

$$\text{dotted minim} = \text{minim} + \text{crotchet} = 3 \text{ crotchets.}$$

$$\text{dotted crotchet} = \text{crotchet} + \text{quaver} = 3 \text{ quavers, etc.}$$

and two dots, by *three-quarters*, e.g. :—

$$\text{dotted minim} = \text{minim} + \text{crotchet} + \text{quaver} = 7 \text{ quavers.}$$

$$\text{dotted crotchet} = \text{crotchet} + \text{quaver} + \text{semi-quaver} = 7 \text{ semi-quavers, etc.}$$

Carefully observe that the second dot adds *half* the value of the first dot, i.e., a quarter of the original note. The following rule will be of assistance :—

"A dot always takes half the value of whatever immediately precedes it, whether note or dot."

N.B.—On reflection, it will be seen that, whatever number of dots were to be placed after a note, the sum of such dots could never equal the value of the original note.

8.—Sound frequently ceases during the course of a musical composition, and there is silence for a definite period. Such silences are indicated by signs called **Rests**, corresponding in duration to the notes whose names they take†, e.g. :—

Semibreve rest.‡	Minim rest.	Crotchet rest.	Quaver rest.
Semi-quaver rest.	Demi-semi-quaver rest.	Semi-demi-semi-quaver rest.	

9.—Dots are sometimes placed after rests, and increase their duration in the same manner as in the case of notes, e.g. :—

$$\text{dotted crotchet rest} = \text{crotchet rest} + \text{quaver rest}$$

* A similar lengthening of a note may be effected by means of a *tie*, or *bind*. (Chap. X Sec. 10.)

† The employment of rests is further considered in connection with *Time*. (Chap. V.)

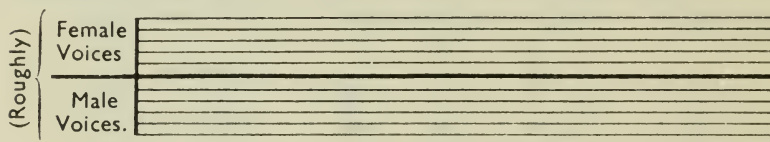
‡ The rest corresponding to the rarely used *Breve* is written thus :

CHAPTER II.

Pitch of Sounds.—The Staff, and Clefs.

1.—The **relative pitch** of sounds is expressed by the **staff**, or **stave**, a species of ladder consisting of a set of parallel lines and the spaces between them. The higher the position of the notes written upon this ladder, the higher (or acuter) will be their pitch ; and, *vice versa*, the lower their position, the lower (or graver) their pitch.

2.—A staff that will include the combined compass of male and female voices is called the **Great Staff**, and consists of 11 lines and the spaces above and below them :—



The thick line represents "Middle C"—the note nearest the middle of the Pianoforte Keyboard.*

3.—Starting from "**Middle C**," the sounds in alphabetical succession upwards are :—

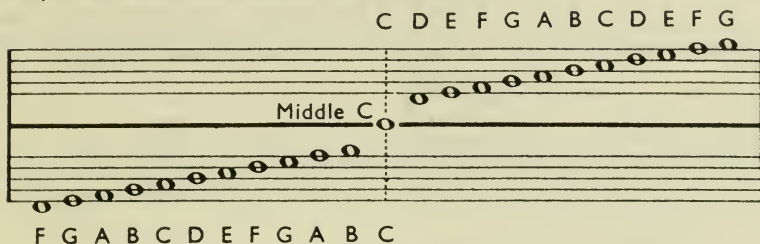
1st space above	" Middle C "	...	...	...	D.
1st line	"	"	...	...	E.
2nd space	"	"	...	...	F.
2nd line	"	"	...	...	G.
3rd space	"	"	...	...	A.
3rd line	"	"	...	...	B.
4th space	"	"	...	...	C.
4th line	"	"	...	...	D.
5th space	"	"	...	...	E.
5th line	"	"	...	...	F.
6th space	"	"	...	...	G.

Similarly, *below* "**Middle C**," the sounds occur alphabetically as under :—

1st space below	" Middle C "	...	...	...	B.
1st line	"	"	...	...	A.
2nd space	"	"	...	...	G.
2nd line	"	"	...	...	F.
3rd space	"	"	...	...	E.
3rd line	"	"	...	...	D.
4th space	"	"	...	...	C.
4th line	"	"	...	...	B.
5th space	"	"	...	...	A.
5th line	"	"	...	...	G.
6th space	"	"	...	...	F.

* The first seven letters of the alphabet, A, B, C, D, E, F, G, are commonly used in naming sounds ; these letters recurring (as will be seen later) at a higher or lower pitch.

The following example will shew the range of sounds, in alphabetical order, comprised within the limits of the "Great Staff."



4.—It will be seen, on reference to the above example, that the same letter-name occurs more than once, at a different pitch. Each repetition of a given letter at a higher pitch will produce what is termed the **Octave** above ; and, similarly, each repetition at a lower pitch will produce the **Octave** below ; and it is worthy of note that any two sounds an octave apart have so strong a resemblance to one another (although so distant in actual pitch), that they produce in the mind almost the effect of one sound.

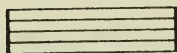
Note.—The number of vibrations in any sound is always twice that of the corresponding sound an octave below it.

5.—A staff of eleven lines, such as the above, would not only be found very inconvenient to read from, but the entire compass of any *single* human voice can be comprised within the limits of far fewer lines and spaces. Hence a **selection of a different set** for each separate voice is made, as shewn in the following diagram by the thick lines :—



6.—A **short staff** is thus formed in each instance, consisting of five lines and the spaces above and below them, and representing one of the

above sets,* thus :—

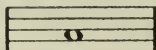


7.—It will now have been seen that the **staff** is used to indicate the **relative pitch** of the various notes placed upon it ; but to represent the

* The five-line staff is now-a-days exclusively used. Formerly, however, staves of four, or even three lines were commonly employed, and, even now, the four-line staff is to be met with in certain music in use in the Church.

absolute, definite height or depth of any sound we need certain signs called **clefs** (Fr. "clef," a key). These shew which set of five lines is to be used, and so localise the actual position of the sounds ; and, until one of these clefs is placed at the beginning of such a staff, the notes written thereon **can bear no names**, neither can we know what sounds they represent. For

instance, the note



might represent any one of the following sounds, viz. : C of the Bass voice, G of the Tenor, B of the Alto, D of the Mezzo-Soprano, F of the Soprano, or A of the Treble (right hand in Pianoforte playing), as will be seen on reference to the diagram in Sec. 5.

8.—Cleps are of three kinds, viz. :—

The **G** clef,



The **C** clef,

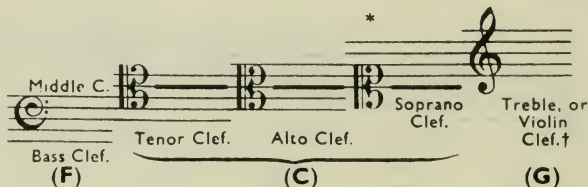


The **F** clef,



The C clef is placed on the staff in such a position as always to indicate "Middle C" ; the F clef is placed upon the F below that note, and the G clef upon the G above it.

Referring again to the example in Sec. 5, the staves and clefs employed for the various voices, &c. there indicated will appear as under :—



The C clef is described in some text-books as a "moveable" clef. The inaccuracy of this statement is shewn at a glance by the above diagram, where it will be seen that the clef in reality remains *always in the same place*, viz., on the line representing "Middle C," the staff in each case being formed by the addition of a greater or less number of lines above or below, as the case may be.

9.—When a staff is formed with the **five highest**, or **five lowest**, lines of the Great Staff, the note "Middle C" is **not included** ; consequently the C clef cannot be used, and the two other clefs, viz. : the F and G, are brought into requisition.

* The "Mezzo-Soprano" clef is omitted, as it is practically obsolete.

† Often called the Violin clef, from the fact that music for the Violin is always written with this clef.

These are the clefs most often seen at the present day, and are the only ones now used in Pianoforte, Harp, or Organ music.

The sounds indicated upon the two staves controlled by the F and G clefs are as follows :—

Lines. Spaces. *

" Middle C." ——— E G B D F (D) F A C E (G)

Lines. Spaces.

A F D B G (B) G E C A (F)

10.—The line for " Middle C " being omitted, this note, when required, is written upon a short line called a **Ledger line** (Fr. *leger*, light), the same distance below the Treble staff as it is above the Bass, e.g. :—

Other sounds above and below the pitch of those on the staff are indicated by similar ledger lines, and the spaces between them, e.g. :—

A B C D E F

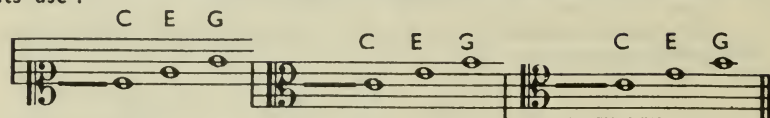
— &c. — &c.

B A G E D C

11.—The C clef was formerly more frequently used than at the present time. Now-a-days, its employment is confined to certain orchestral instruments, and occasionally (particularly in foreign scores) to the Soprano,

* The notes and letters enclosed in brackets are, in reality, not actually upon the staff, being respectively above and below it ; but it is convenient to indicate them here.

Alto and Tenor voices.* The following table will shew the method of its use :—



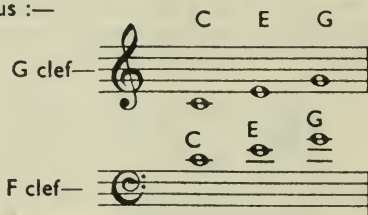
"Middle C" forming 1st line of five-line staff, used for the **Soprano** voice.

"Middle C" forming 3rd line of staff, used for the **Alto** voice, the Viola, and the Alto Trombone.

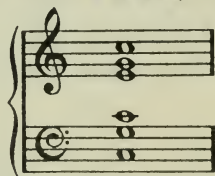
"Middle C" forming 4th line of staff, used for the **Tenor** voice, the upper notes of the Violoncello and Bassoon, and for the Tenor Trombone.

The fallacy of describing the C clef as a moveable one is again shewn in this example.

12.—It will be observed that the three notes written above are in each case **identical in pitch** ; they could be represented in the G and F clefs respectively, thus :—

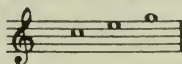


13.—In music for the Pianoforte, Harp, or Organ, the two staves are usually connected by a sign called a **Brace**, thus :—

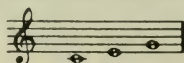


and, unless specially indicated otherwise, the notes in the Treble, or G clef, are played with the right hand, and those in the Bass, or F clef, with the left hand.

* In England and America, the vocal parts are nearly always written in the F and G clefs ; but a distinct advantage of the use of the C clef is that practically the whole compass of any particular voice is included on the staff, without the use of ledger-lines. When the G clef is used (as it commonly is) for the Tenor voice, the notes are written an octave higher than they sound, a plan tending to obscure their true pitch in the mind of the performer, e.g. :—



written for a Tenor voice would represent



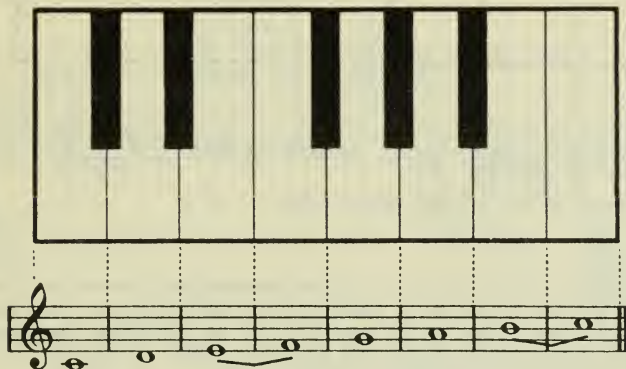
in actual sound.

CHAPTER III.

Pitch of Sounds (*continued*).—Sharps, Flats, &c.

1.—A chain of sounds such as that given in Chapter II, Sec. 3, although an alphabetical one, is not one in which the distances between the successive notes are in all cases equal, the difference in pitch between the notes B—C and E—F being smaller than that between any other two notes in alphabetical order.

2.—It will be observed that, on the Pianoforte or Organ keyboard, there are in two instances two white keys next to one another, **without a black key between** ; but that, in all other cases, a black key separates two succeeding white ones, thus :—



(Sounds represented by the white keys in order, starting from "Middle C.")

3.—In the above diagram, the distance from one white key to another, *when no black key comes between*, is called a **semitone**—being found between E and F, and between B and C, a *whole tone* occurring between any other successive white keys. The semitone is the **smallest distance** from one note to another on the **Pianoforte or Organ keyboard**.*

4.—The black keys represent the sounds lying at the distance of a semitone above or below the adjacent white keys, and are termed **sharps** and **flats**

5.—A sharp, #, placed before a note **raises** the pitch of that note one semitone, and a flat, b, **lowers** it one semitone. By the following diagram

* Voices, and instruments of the "String" family, such as the Violin, Viola, Violoncello, &c., can produce sounds whose distance from one another is smaller than a semitone ; but, for all practical purposes, the semitone is regarded as the smallest.

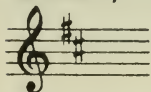
it will be seen that, in this way, each black key may represent a sharp or a flat ; a chain of semitones resulting in each case :—*

(Read this line from left to right.)

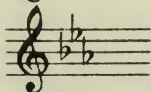
(Read this line from right to left.)

begin here.

6.—When a sharp or a flat is placed **immediately after the clef**, it is intended that all the notes of the same name, occurring during the entire composition (or section of the same) are to be **similarly sharpened or flattened**, unless the contrary is indicated (see Sec. 7) ; e.g. :—



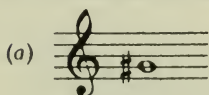
signifies that *all* F's and C's are to be sharp.



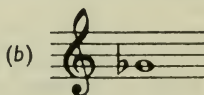
signifies that *all* B's, E's and A's are to be flat.

The signs so placed at the beginning of the staff constitute what is known as the **Key-signature**. (Chap. VI, Sec. 8.)

7.—Oftentimes it is necessary **temporarily** to sharpen or flatten a note ; in this case, the sharp or flat is placed **immediately before the note**, and is termed an **Accidental** :—



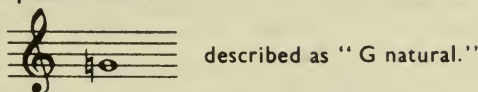
described as
"G sharp."



described as
"G flat."

* When the two notes of a semitone are expressed by the **same letter-name**, as C to C \sharp , or C to C \flat , the semitone is termed **chromatic** ; when they are expressed by **two different letters**, as C to D \flat , or C to B, it is called **diatonic**.

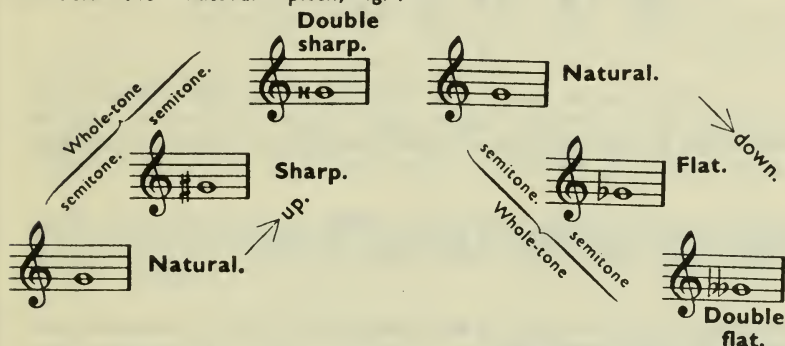
When it is desired to restore such note to its normal pitch a sign called a **Natural**, \natural , is placed before it :—



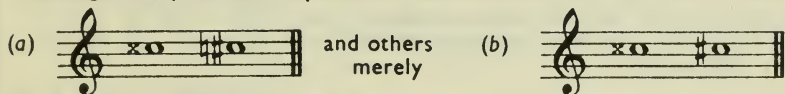
This is called **contradicting** the accidental.*

It will be seen that, after a \sharp has been used, a \natural lowers the pitch of the note a semitone again ; and similarly raises it, after a \flat has been used.

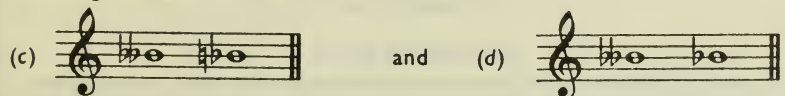
8.—**Double-sharps and double-flats** are frequently met with as accidentals. A double-sharp, \times , has the effect of *raising* an already sharpened note a semitone—i.e., a *whole tone* above the "natural" pitch ; and a double-flat, $\flat\flat$, similarly *lowers* an already flattened note a semitone—i.e., a *whole tone* below the "natural" pitch, e.g. :—



9.—Unfortunately, there are two methods of contradicting double-sharps, or double-flats. In order to **lower a double-sharp** by a semitone to a single sharp, some composers write—

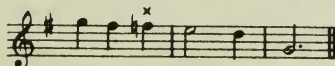


and in order to **raise a double-flat**, similarly, to a single flat, both of the following methods are used :—



The plan adopted at (b) and (d) is to be recommended as being simpler and less cumbersome.

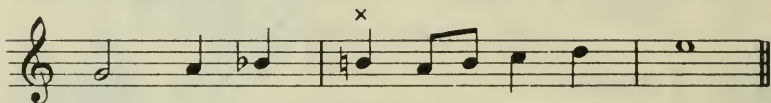
* In cases where the key-signature contains one or more sharps or flats, it is evident that the **natural** itself may become an accidental ; e.g. :—



10.—Accidentals, of whatever kind, **affect all notes of the same pitch** throughout an entire *bar*, or *measure* (see Chap. IV, Sec. 3), unless contradicted, but **no further**. If an accidental is to apply to notes of the same letter-name, *but in a different octave*, it should be **indicated again** in that particular position, e.g. :—



11.—When the last note of a *bar*, or *measure*, has been inflected by an accidental, and the next *bar* begins with a note of the same letter-name, restored to its original pitch, it is safer **specially to indicate** the change, e.g. :—



although, if the rule in Sec. 10 were always acted upon by composers this would not be necessary.

12.—In connection with the subject of sharps and flats, it is worth while to note that each pianoforte key, except the black key lying between G and A, may be called by **three names**, e.g. :—C = B# = Dbb, F# = Gb = EX, and so on. The black key above referred to can bear only **two names**, viz. : G# and Ab.

(See Addenda, page 83.)

CHAPTER IV.

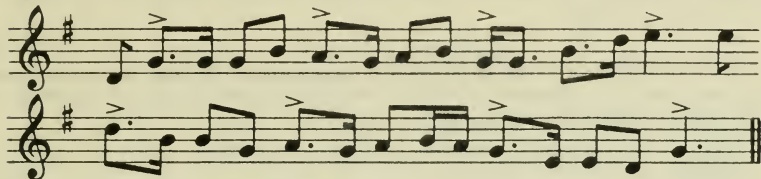
Accent and Time.

1.—To produce a satisfactory musical effect, it is not only necessary that there should be (i) variety of pitch, and (ii) duration of sound, but also (iii) what is termed **Accent**. The grouping of sounds into sets by means of accent produces what is known as **Time**.*

2.—In a well-ordered succession of sounds, producing what is commonly called a **Melody**, or **Tune**, it cannot have escaped the student's notice that

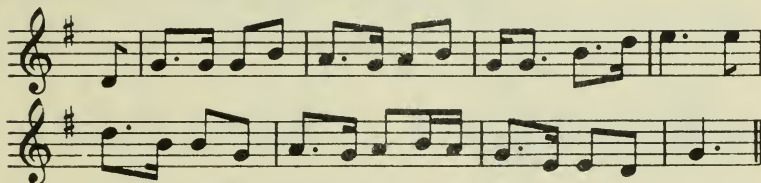
* Not to be confused with "Tempo," which means the speed at which a composition is to be played or sung.

certain of these sounds are **accented more strongly** than others ;* and that, periodically, there is a recurrence of an accent stronger than the rest, which, for the sake of convenience, we will call the **Strongest Accent**, e.g. :—



If this were not the case, music would be chaotic, vague, and lacking in definite impression.

3.—To indicate the position of this constantly recurring Strongest Accent, it is now-a-days customary to place a perpendicular line—from top to bottom of the staff—immediately before such accent. The above passage would thus appear as follows :—



Such lines are termed **Bar-lines**, and as much as is contained between any two successive bar-lines is described as a **Measure** or a **Bar** of music.†

* The accenting of certain notes in a melody is analogous to the **scansion** of poetry, e.g. :—

(i) **Iambic metre** :

“ As thro' the land at eve we went,
And pluck'd the ripen'd ears ” ;

(ii) **Trochaic metre** :

“ Who are these like stars appearing ? ”

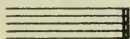
(iii) **Anapæstic metre** :

“ With a smile on her lips, and a tear in her eye.”

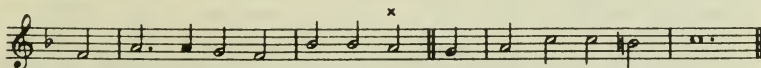
(iv) **Dactylic metre** :

“ God save our gracious King.”

† At the conclusion of a composition, or sometimes at the termination of a period, or musical sentence, two somewhat thicker lines are drawn, called a **Double-bar**, e.g. :—



These, however, do not always mark the situation of the accent, neither do they affect the time (as in the following example) :—

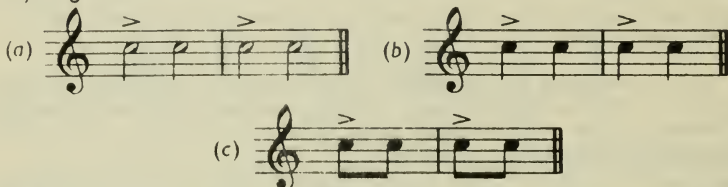


The double-bars here merely indicate the end of a line of words in the hymn to which the tune is set, and the time is not broken at X.

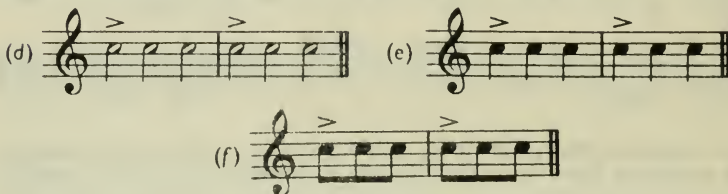
4.—The Strongest Accent in musical passages may recur at a **greater or less distance of time**, producing, as a consequence, bars of various lengths—bars in which there are, as the case may be, two, three, or four divisions, *pulses, or **beats** (as they are usually called, from the practice of "beating" time).

5.—The **kinds of Time** produced—depending, be it observed, entirely upon this periodic recurrence of the Strongest Accent—may be classified under **three** headings, viz. :—

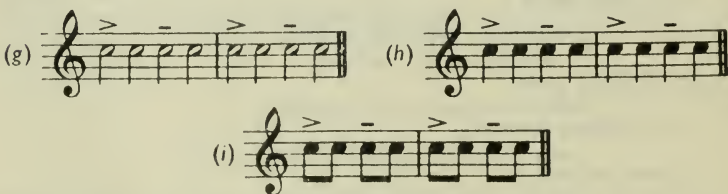
Duple (in which each bar is divisible into **two** beats of equal value), e.g. :—



Triple (in which each bar is divisible into **three** such beats), e.g. :—



Quadruple (in which each bar is divisible into **four** such beats), e.g. :—



NOTE.—Quadruple time being practically an extension of Duple time, an accent will occur on the third beat, but it will be slighter than that on the first beat.

6.—As it is usual for one kind of Time to be maintained for a considerable portion of a composition—often for the whole of it—it is customary to indicate, at the beginning of the piece, the particular **kind of Time** in which it is written. For this purpose a sign called a

* Bars with five, or seven such divisions are sometimes met with, but they occur so rarely that it will suffice merely to mention the fact here, particularly as a bar with five divisions generally has the effect of a bar of three divisions, followed by one of two divisions; and, a bar of seven the effect of one of four, followed by one of three.

Time-signature is used, which (except in two instances*) consists of two figures, an upper and a lower, thus :—

$\frac{2}{4}$	$\frac{3}{8}$	$\frac{4}{16}$ &c.
---------------	---------------	--------------------

the upper figure shewing, the **number of divisions** in a bar, and the lower specifying their **quality**, or **value**.

7.—In order to indicate the **value** of the beats or divisions, whether minims, crotchets, quavers, semiquavers, &c., the lower figure is always an aliquot part of a semibreve (which note is taken as the standard from which the others are reckoned), e.g. :—

$\frac{2}{2}$	$\frac{4}{4}$	$\frac{8}{8}$	$\frac{16}{16}$ &c.
---------------	---------------	---------------	---------------------

N.B.—It will be seen, on reference to the table of note-values in Chap. I Sec. 2, that these figures give the fractional part of a semibreve represented by each kind of note in order.

8.—When each beat or a bar is **divisible by two** (i.e., when it can be represented by two of the notes next smaller in value), the time is called **Simple**. Thus we have Simple Duple Time, Simple Triple Time, and Simple Quadruple Time, the more usual time-signatures being :—

Simple Duple Time.

$\frac{2}{2}$ or two minim beats in a bar (i.e., two halves of a semibreve.)†

$\frac{2}{4}$ or two crotchet beats in a bar (i.e., two quarters of a semibreve.)

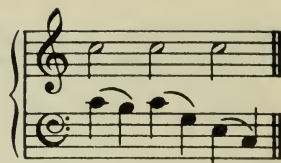
$\frac{2}{8}$ or two quaver beats in a bar (i.e., two eighths of a semibreve.)

* See under quadruple time in Sec. 8 below ; also Appendix A—"Alia Breve."

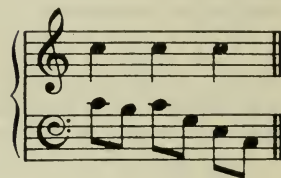
† The division of each beat by 2 is shewn on the lower staff in each example.

Simple Triple Time.

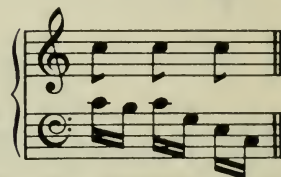
$\frac{3}{2}$, or three minim beats in a bar.



$\frac{3}{4}$, or three crotchet beats in a bar.

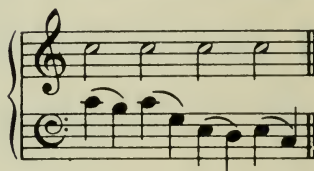


$\frac{3}{8}$, or three quaver beats in a bar.

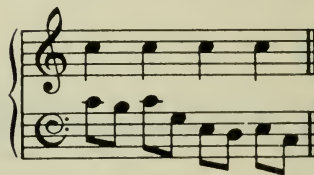


Simple Quadruple Time.

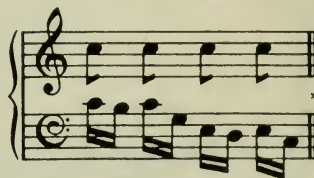
$\frac{4}{2}$, or four minim beats in a bar.
(Sometimes called "Alla Breve" time, from the fact that the whole bar is of the value of one Breve)—See Appendix A.



$\frac{4}{4}$, or four crotchet beats in a bar,
(often indicated thus, C).



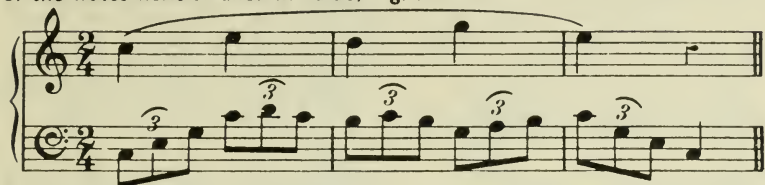
$\frac{4}{8}$, or four quaver beats in a bar.



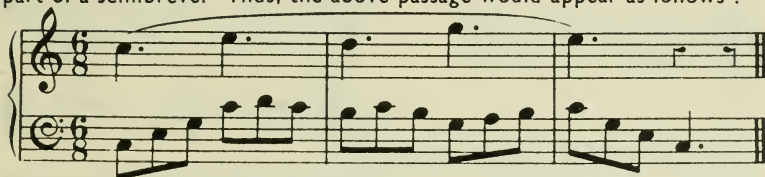
9.—Oftentimes the character of the music requires each beat of a bar

* It is very rarely that we find times in which the beats are of the value of semibreves or notes shorter than quavers. There are, however, two rather well-known instances of $\frac{3}{1}$ (three semibreves in a bar) in Clementi's "Gradus ad Parnassum."

to be **divisible by three** (i.e., represented by a *triple* (See Appendix A)) of the notes next smaller in value, e.g. :—



To save the necessity of marking the triplets throughout an entire composition of this kind, a new time-signature is employed, in which the lower figure indicates the **quality of each note of the triplet**—as an aliquot part of a semibreve. Thus, the above passage would appear as follows :—



Here the signature means that six *eighths* of a semibreve (viz., six quavers) are to be taken in each bar, divided into **groups of three**, each group constituting one beat, and being consequently of the value of a dotted crotchet. Hence the above time would be described as having two dotted crotchet-beats in a bar.*

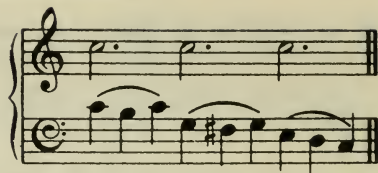
10.—When the beats of a bar are dotted, the time is termed **compound**, and thus we have Compound Duple time, Compound Triple time, and Compound Quadruple time, the more usual time-signatures then being—

Compound Duple Time.	{	6 4,	two dotted minim beats in a bar.	
		6 8,	two dotted crotchet beats in a bar.	
		6 16,	two dotted quaver beats in a bar.	

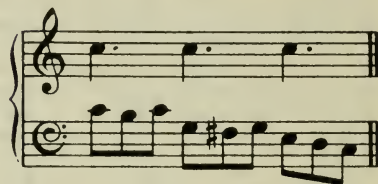
* Observe that the dotted beats in the second of the above examples are of exactly the same duration as the undotted beats in the first.

Compound Triple Time.

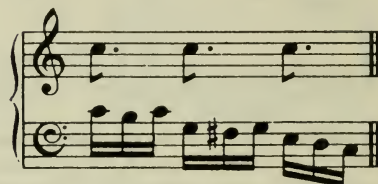
9 three dotted minim beats
4' in a bar.



9 three dotted crotchet beats
8' in a bar.

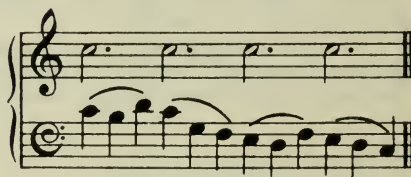


9 three dotted quaver beats
16' in a bar.

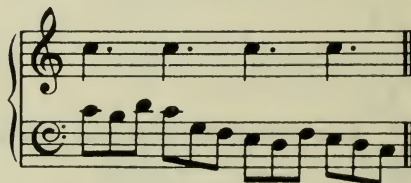


Compound Quadruple Time.

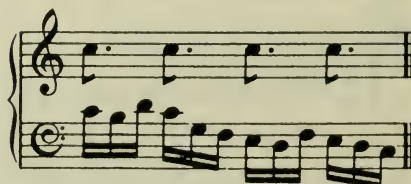
12 four dotted minim beats
4' in a bar.*



12 four dotted crotchet
8' beats in a bar.

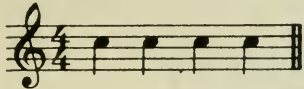
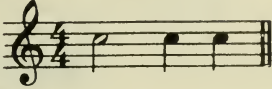
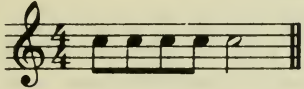
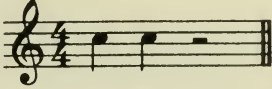
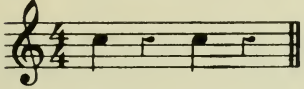
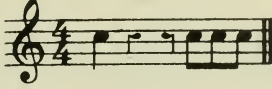


12 four dotted quaver beats
16' in a bar.



* Rather rare.

11.—It will be readily understood from the examples in Secs. 8 and 10, that the divisions or beats of a bar may always be expressed by their **equivalent value in notes of shorter or longer duration**, or by an equivalent number of notes and rests, e.g. :—

(a) 	(b) 
(c) 	(d) 
(e) 	(f)  &c.

CHAPTER V.

Accent and Time—(continued).

The Grouping of Notes.

1.—When the divisions of a bar are represented by their equivalent value in quavers, semiquavers, &c., it is the custom for these notes to be **grouped together**.* Such groupings should always indicate, as far as possible, the divisions, or beats, in order to make their position clear to the eye. Thus, it may be taken as a safe rule that **only as many notes should be grouped together as would form one beat**, but that the notes belonging to each beat *should* be so grouped, e.g. :—

(a) 	(b) 
(c) 	(d) 
(e) 	(f) 

Examples of this rule could easily be multiplied, but the above instances, both of its observance and of its non-observance, will be sufficient to shew

* In vocal music, only as many notes may be grouped together as are sung to one syllable.

† The dotted lines mark the divisions of the bars.

the necessity of correct groupings, in order to make clear the equal divisions of the bar.

NOTE.—It should be borne in mind, in connection with the question of the sub-division of the beats of a bar, that the first note of any such sub-division is always stronger than the remaining ones, and that it thus forms a **subordinate accent**, e.g.:—

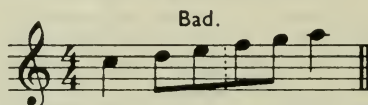
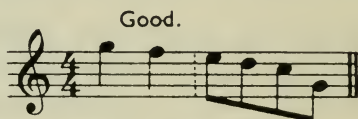
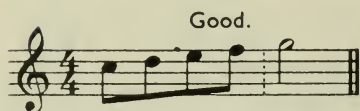


Here the **main accent** of course occurs at the beginning of the **first beat** ; but the F and G (the first note of the second and third beats respectively) are more strongly emphasised than the other notes of *their own groups*.

This rule applies in a similar way to every further sub-division into groups of shorter notes.

2.—Exceptions to the rule given in Sec. 1, occur as under :—

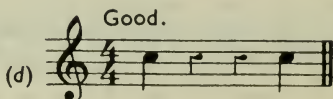
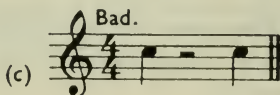
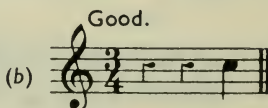
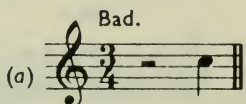
- (i.) In the case of $\frac{4}{4}$ time, when it is customary to **group quavers in fours**, where a clear half-bar is indicated *by each four*, e.g.:—



- (ii.) In the case of $\frac{3}{4}$ or $\frac{3}{8}$ time, when it is usual to arrange the six quavers of $\frac{3}{4}$, or the six semiquavers of $\frac{3}{8}$, in **one group**, e.g. :—



3.—In the matter of the employment of **rests**, no rest of greater value than one beat should be used (except in two instances mentioned in Sec. 4), e.g.:—



(e) Bad. (f) Good.

or (g) Good.

4.—There are two exceptions to this rule, viz. :—

(i.) In the case of a **whole bar's rest**, when a semibreve rest is used in *all* times, save the true "*Alla Breve*" (or $\frac{4}{2}$) time, when a breve rest is used, appropriately :—

(a) Bad. (b) Bad. (c) Bad.

(d) Good.

(ii.) In the case of a **clear half-bar at either end of a bar of quadruple time**, when a rest of the value of that half-bar should be used :—

(a) Good. (b) Bad.

(c) Bad.

(d) Good. (e) Bad.

5.—With regard to **notes**, a greater freedom is permissible, and a sound lasting during more than one beat is often represented by a **single note**.
e.g. :—

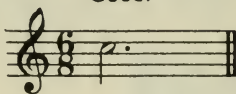
instead of instead of

instead of instead of

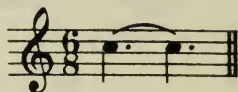
instead of instead of

Observe, however, that in *compound* times, this can only occur when the sound lasts for two or more whole beats :—

Good.

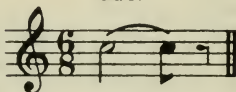


instead of

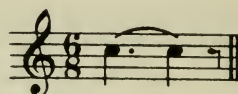


Bad.

*

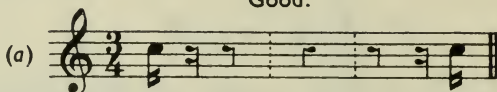


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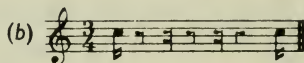
6.—When a bar has to be **completed with rests**, care must be taken that each beat (or sub-division of the same) must be finished **before the next is begun**. The following example will illustrate this :—

Good.



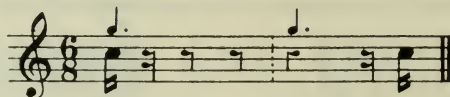
Here, in $\frac{3}{4}$ time, each beat consists of a crotchet. The note at the beginning of the bar has taken a *quarter* of the first beat ; therefore, a semiquaver rest must succeed, to fill up the first half ; a quaver rest following, by which the entire beat is completed. The second beat of the bar is intact, consequently a crotchet rest is used. In the case of the third beat the semiquaver note at the end of the bar represents the *last quarter* of that beat, which will be completed in the same manner as in the case of the first part of the bar—**only in the reverse order.**†

Bad.



This example, although it contains the same rests as the bar at (a), is totally incorrect, as their order gives no idea of the position of the various divisions, or sub-divisions.

7.—If $\frac{6}{8}$ (compound duple) were to be substituted for $\frac{3}{4}$ in Ex. (a), the order of rests would be as follows :—



Here **each beat** is of the value of a **dotted note**, as shewn by the small notes above the example, and it should be remembered that in the case

* Here the minim totally obliterates the idea of the division of a bar of $\frac{6}{8}$ into two dotted crochet beats, and suggests a bar of $\frac{3}{4}$.

† N.B.—When any division of a bar begins or ends with a short note, the next rest in that division will always be of identical value.

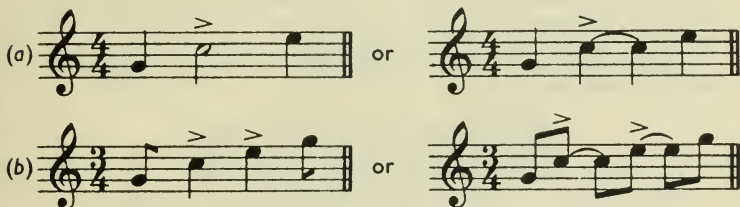
of compound times, the value of each of such notes—*without its dot*—should always be completed with rests first, a **separate rest being used for the dot**. Hence, in the above example, the first crotchet having been broken into, is completed by the addition of, first, a semiquaver rest, and then a quaver rest (*vide* Sec. 6)—a second quaver rest then succeeding, as the equivalent of the dot.

In the second half-bar, the case is different. The semiquaver note at the end of the bar has taken the latter half of the *dot*, and consequently needs a semiquaver rest before it, to fill up the value of that dot. A crotchet rest (*not two quaver rests*) then precedes, to represent the unbroken crotchet at the beginning of the second beat.

8.—Syncopation is an effect in music caused by throwing additional emphasis upon what is usually a weaker part of a bar. The most common instances of this are found when a note is begun

(i.) On a comparatively unaccented part of a bar, and prolonged into the next accent, as at (a) ; or

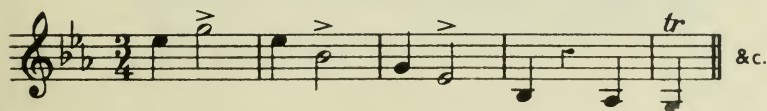
(ii.) In the *midst* of one beat, and prolonged into the next, as at (b).



The effect of syncopation is, moreover, produced whenever the *natural* accent is **disturbed by any means**—by ties, rests, &c., e.g. :—



A strong instance of syncopation in triple time is to be found in the *scherzo* of Beethoven's "Eroica" symphony, where the following passage occurs :—



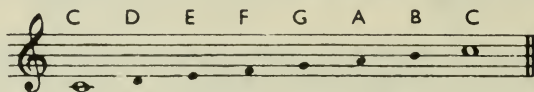
CHAPTER VI.

Scales.

The Major Scale.

1.—A **scale** (L. *scala*, a ladder) is an alphabetical succession of sounds, having reference to one particular sound as its starting-point, or **key-note**.

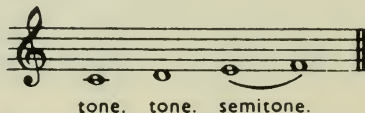
2.—As was stated in Chap. II, Sec. 2 (foot-note), the first seven letters of the alphabet are employed to express the different sounds in use. The re-appearance of the same letter at a different pitch produces what is known as the **octave** of the sound originally indicated by that letter, thus :—



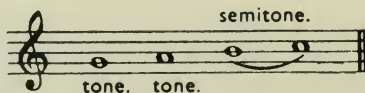
A continuation, alphabetically, of this series, higher or lower, would be merely a reproduction of these sounds at a higher or lower pitch—in other words, in a higher or lower octave.

3.—If the student will play the succession of notes in Sec. 2 on the Pianoforte (represented by the white keys), he will find that the distances between the notes are not in all cases equal. (Chap. III, Sec. 1.)

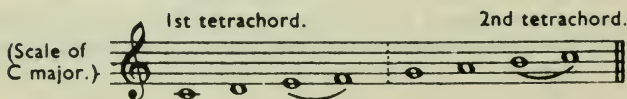
For instance, the first four notes contain two steps of a **tone** each, and one of a **semitone**, thus :—



Proceeding further, it will be seen that the remaining four sounds of the octave are on exactly the same pattern :—

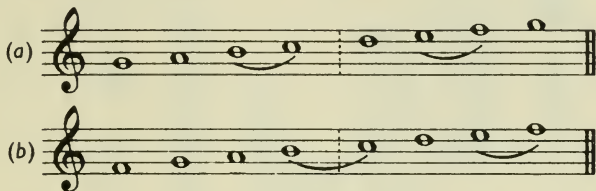


Each of these groups of four notes alphabetically arranged is called a **tetrachord** (Gr. *τέτρα*, four ; *χορδή*, a string), and together form what is termed the **Major Diatonic scale** (Gr. *διά*, through ; *τόνος*, a tone, i.e., through the tones, or sounds).



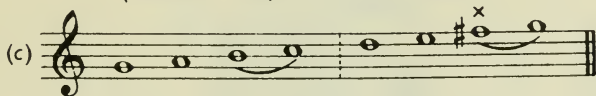
4.—This **Major Scale**—i.e., a scale having a semitone between its 3rd and 4th degrees, and also between its 7th and 8th degrees—may not only begin upon C as its **key-note**, or starting point, but may be reproduced at a different pitch, any one of the seven letters* above-mentioned being taken as the key-note.

Clearly, however, the white keys of the Pianoforte, or natural notes, would not suffice for the purpose, as were they only to be used, the above order of tones and semitones would not be preserved, e.g. :—

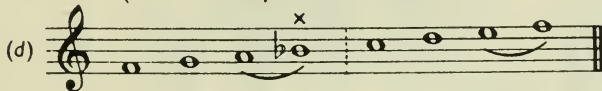


Hence, we must employ the black keys, representing certain sharps and flats, e.g. :—

(Scale of G major, with one sharp, F.)



(Scale of F major, with one flat, B.)

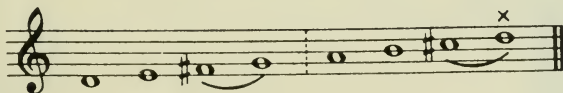


by which the tones and semitones are brought into their right positions.

5.—It will be seen, by Ex. (c) above, that the **first** tetrachord of the scale of G major corresponds to the **second** tetrachord of C major, and that the scale of G is completed by adding a **new tetrachord**, containing a sharpened note (the **seventh** of the entire scale).

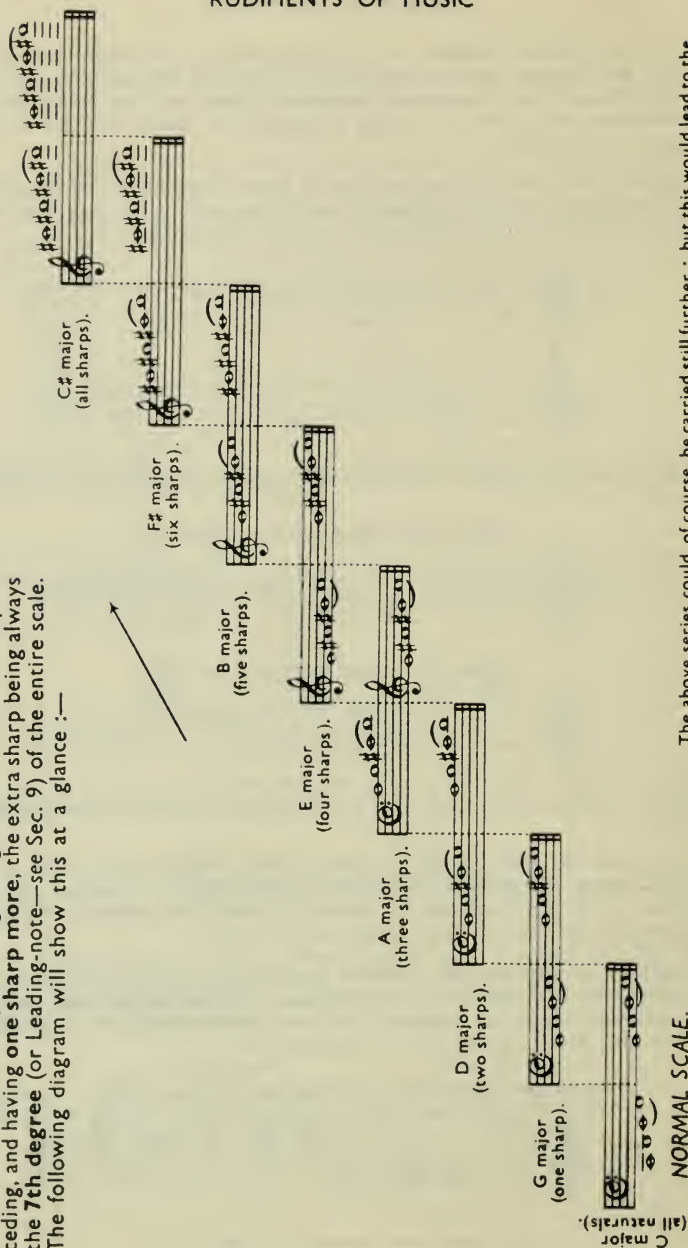
Similarly, if we take the **second** tetrachord of this scale (G) as the **first** tetrachord of a new scale, and then add another tetrachord, we shall find it necessary again to **sharpen the note before the last**, in order to preserve the order of tones and semitones :—

(Scale of D major, with two sharps, F and C.)



* Or these letters inflected by sharps or flats.

6.—It will thus be found that a series of major scales can be formed, each succeeding scale beginning on the 5th note of the preceding, and having **one sharp more**, the extra sharp being always the **7th degree** (or Leading-note—see Sec. 9) of the entire scale. The following diagram will show this at a glance :—



The above series could, of course, be carried still further ; but this would lead to the introduction of Double-sharps, and such extreme scales would be more conveniently written in flats. (See Sec. 7 below.)

NORMAL SCALE.

7.—Similarly, a series of major scales with flats can be formed—(each succeeding scale beginning on the 4th degree of the preceding, i.e., five notes lower)—the extra flat always being the 4th degree of the new scale thus produced :—

C major
(all naturals).

F major
(one flat).

B \flat major
(two flats).

E \flat major
(three flats).

A \flat major
(four flats).

D \flat major
(five flats).

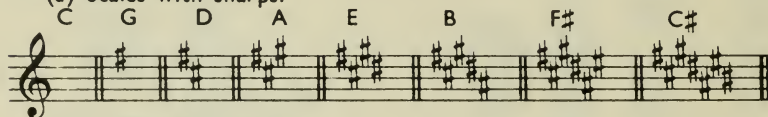
G \flat major
(six flats).

C \flat major
(all flats).

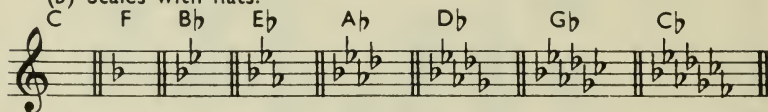
8.—To save unnecessary complication in writing, the sharps and flats in such scales are placed at the beginning of a musical composition, immediately after the clef. They then form what is known as the **key-signature**. (Chap. III, Sec. 6.)

The key-signatures of the above two series of scales would appear as under :—

(a) Scales with sharps.



(b) Scales with flats.

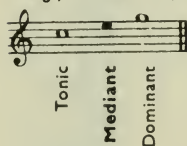


It should be observed that these sharps and flats must be placed in the signature in regular order, as developed from the *natural* scale according to the plan mentioned in Secs. 6 and 7 above. (See Addenda, page 84.)

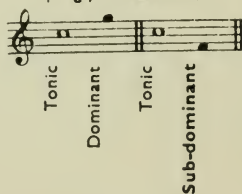
9.—Every degree of a (major or minor) diatonic scale has a technical name, as follows :—

1st degree	Tonic , or Key-note	...	The note from which the whole scale, key, or tonality springs.
2nd	„ Super-tonic	...	The note next <i>above</i> the Tonic.
3rd	„ Mediant	...	The note <i>midway</i> between the Tonic and the Dominant.*
4th	„ Sub-dominant	...	<i>Under-dominant</i> , holding same position <i>under</i> the Tonic as the Dominant does <i>above</i> it.†
5th	„ Dominant...	...	The note next in importance to the Tonic, having a <i>dominating</i> influence over the key.
6th	„ Sub-mediante	...	<i>Under-mediante</i> , the note holding the same position <i>below</i> the Tonic, midway between it and the Sub-dominant, as the Mediant does <i>above</i> the Tonic, midway between it and the Dominant.‡
7th	„ Leading-note	...	The note that leads the ear to expect the Tonic, or Key-note.

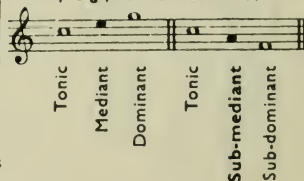
* e.g., in scale of C.



† e.g., in scale of C.



‡ e.g., in the scale of C.

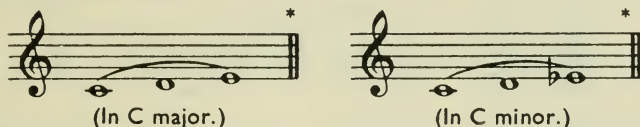


CHAPTER VII.

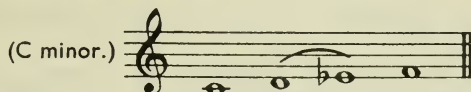
Scales—(continued).

The Minor Scale.

1.—The **Minor scale** derives its name from the fact that its 3rd degree is a chromatic semitone lower than the corresponding degree of the major scale, consequently producing a smaller (or **minor**) interval from the Tonic to the Mediant, e.g.:—

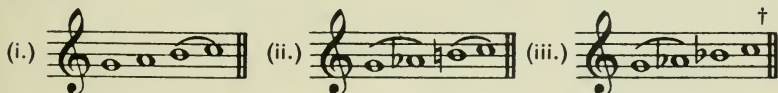


2.—The Minor scale exists in more than one form ; in each of which, however, the **first tetrachord** is the same, e.g. :—



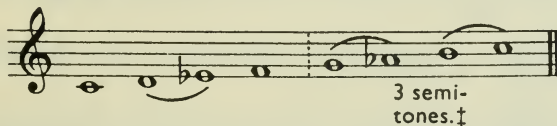
the semitone occurring between the 2nd and 3rd degrees, instead of between the 3rd and 4th, as in the Major scale.

3.—The **second tetrachord** may be found in either of the following forms :—



It will be seen that No. i. has the step of a semitone between the 7th and 8th degrees, No. iii. between the 5th and 6th ; whereas No. ii. has semitones both between the 5th and 6th, and the 7th and 8th degrees.

4.—The most usual (and useful) form now-a-days is that termed the **Harmonic Minor Scale**, in which the second tetrachord is that given as No. ii. above :—



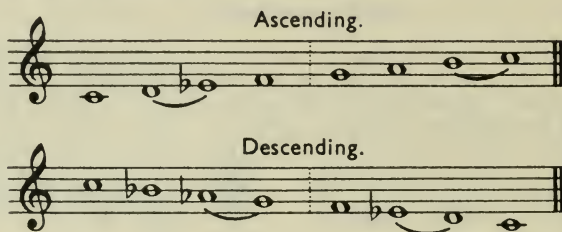
This scale is termed *Harmonic*, as it is the one from which the harmonies of a minor key are most usually formed.

* The difference in pitch (i.e., the *interval*) between C and E is termed a major 3rd ; that between C and E♭ a minor 3rd. (See Chap. IX.)

† Used only in descending.

‡ Interval of augmented 2nd. (See Chap. IX, Sec. 9.)

5.—The tetrachords given as Nos. i. and iii. in Sec. 3 are rarely found except as the ascending and descending forms, respectively, of the scale known as the **Melodic Minor Scale** :—



a scale used by composers at times to avoid the somewhat hard effect in *melody* (see App. A), of the step of a tone-and-a-half between the 6th and 7th degrees of the Harmonic Minor Scale.

It should be noticed that, in the Melodic Minor Scale, as shewn above, the Tonic is approached by step of a semitone, ascending ; and the Dominant by a similar step, descending.

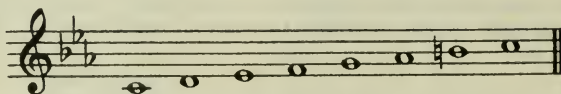
6.—The method of writing the **signature** of a Minor scale is a **singularly unfortunate one**, representing neither of the above forms accurately. The plan is to make the signature of a minor scale coincide with that of the major scale that begins on its 3rd degree, e.g.:—

A minor	has the same signature as	C major
E	„ „ „	G major

and so on.

These scales, having the same signature, are termed **relative** major and minor scales.

7.—Returning for a moment to the harmonic scale of C minor given in Sec. 4 above, and applying this rule, it will be found that its signature is that of the scale of E \flat major (its 3rd degree), thus :—



the Leading-note being written with an accidental to cause the semitone to occur between the 7th and 8th degrees.

Here the **anomalous character of the signature** will be seen, for a B \flat appears therein, only to be contradicted when we arrive at the Leading-note of the scale.

When the Melodic Minor Scale is considered, the matter is no better, as A \flat is required in ascending, and the signature contains A \flat .

8.—The **signatures** of the various minor keys are therefore as follows :—

A MINOR, with same signature as **C MAJOR,**

I.—Sharp keys.

E MINOR, with same signature as **G MAJOR,**

B MINOR, „ „ **D MAJOR,**

F# MINOR, „ „ **A MAJOR,**

C# MINOR, „ „ **E MAJOR,**

G# MINOR, „ „ **B MAJOR,**

D# MINOR, „ „ **F# MAJOR,**

A# MINOR, „ „ **C# MAJOR,**

A MINOR, with same signature as **C MAJOR,**

2.—Flat keys.

D MINOR, with same signature as **F MAJOR,**

G MINOR, „ „ **Bb MAJOR,**

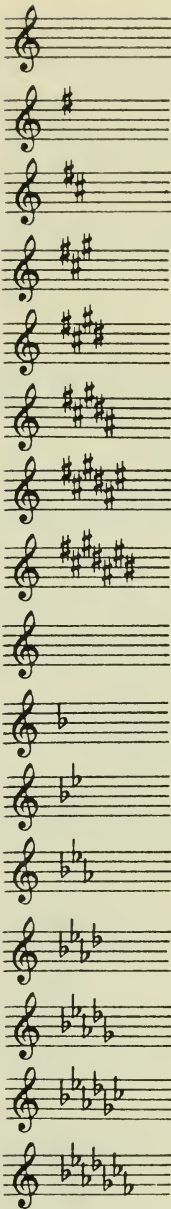
C MINOR, „ „ **Eb MAJOR,**

F MINOR, „ „ **Ab MAJOR,**

Bb MINOR, „ „ **Db MAJOR,**

Eb MINOR, „ „ **Gb MAJOR,**

Ab MINOR, „ „ **Cb MAJOR.**



9.—A major and a minor scale starting from the same tonic, or key-note, are termed respectively the **Tonic Major**, or **Tonic Minor**, of each other :—

(i.) C major : Tonic minor = C minor.

(ii.) C minor : Tonic major = C major.

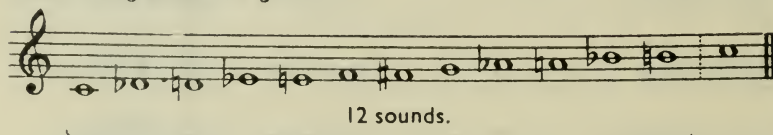
It will be seen from the diagram in Sec. 8 that there is always a difference of three signs between the signatures of a major scale and its Tonic minor.

CHAPTER VIII.

Scales—(continued).

The Chromatic Scale.

1.—A **Chromatic Scale** (Gr. *Χρώμα*, colour), is a scale proceeding entirely by semitones, the **number of sounds** between any note and its octave being **twelve**, e.g. :—

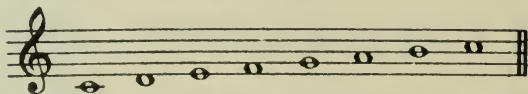


2.—The student will observe that all the Pianoforte keys, black as well as white, are needed to form this scale.

3.—The **Chromatic scale** is found written in more ways than one, that given in Sec. i. being termed the **Harmonic Chromatic Scale**, from the fact that the chromatic harmonies (see App. A, *Chromatic* and *Chromatic Chord*) of any key need this particular notation for their proper formation.

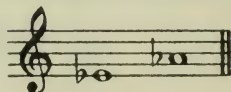
4.—The **Harmonic Chromatic Scale** is constructed as follows, and **each key has its own chromatic scale**, formed upon exactly the same plan :—

- (a) Take the notes of the **Major** diatonic scale of the particular key in question—e.g. (in key of C) :—

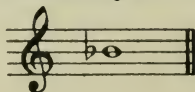


- (b) Add the notes that differ from these in both forms of the **Minor** diatonic scale :—

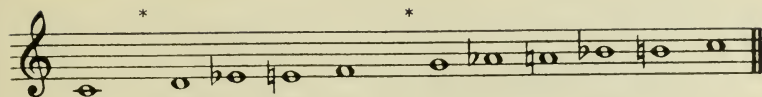
In Harmonic Minor.



In Melodic Minor
(descending form).

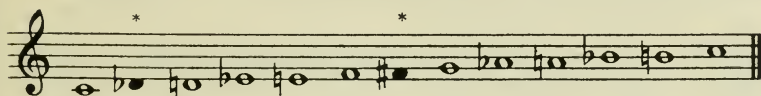


We now have the following :—

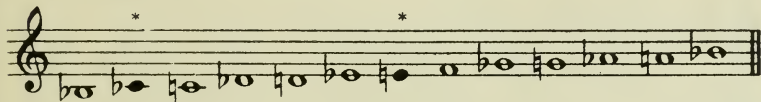


with gaps as yet between the Tonic and Supertonic, and between the Sub-dominant and Dominant. To complete the Chromatic Scale, we must finally add the **diatonic semitone** (Chap. III, Sec. 5, foot-note) above the **key-note** (i), and the **chromatic semitone** above the **sub-dominant** (ii). The following examples will make this clear :—

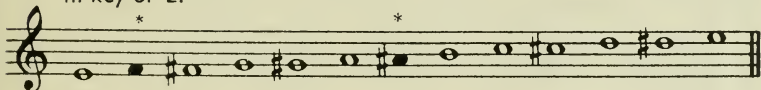
In key of C.



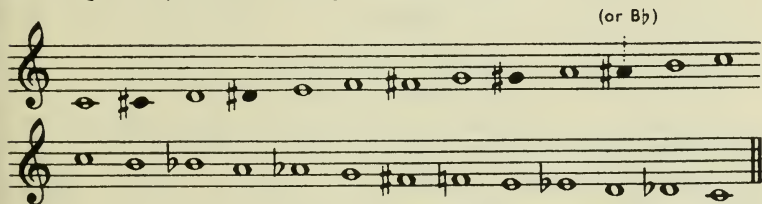
In key of B \flat .



In key of E.

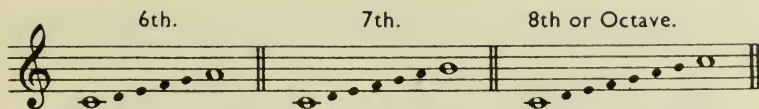


5.—The above is the chromatic scale, formed upon a harmonic basis, but it is often found **modified in notation**, for the purpose of lessening the number of accidentals, and so simplifying matters for the reader of music. These alterations are purely for convenience, however, and vary from time to time, according to the circumstances in which they are needed, the most usual form of **Arbitrary** (or *Melodic*) **Chromatic Scale**—as it is generally termed—being the following :—



6.—It will be seen, by comparing this form of scale with that given in Sec. 4, that, in ascending, the number of accidentals is much reduced, the scales remaining, however, identical in notation in the descending form.

(i.) The minor 2nd above the key-note. } (Chap. IX, Secs. 7 and 9.)
(ii.) The Augmented 4th " " }



Here it will be seen that the 1st, or unison, contains only *one* letter-name ; a 2nd, two ; a 3rd, three, and so on.

3.—The **inflection** of either note of an interval—or of both—by an accidental **does not alter** its numerical description ; but, as will be seen later, it causes its **quality** to be varied.

Thus, each of the following comes under the description of a 3rd, as between C and E there is only one letter-name, D :—

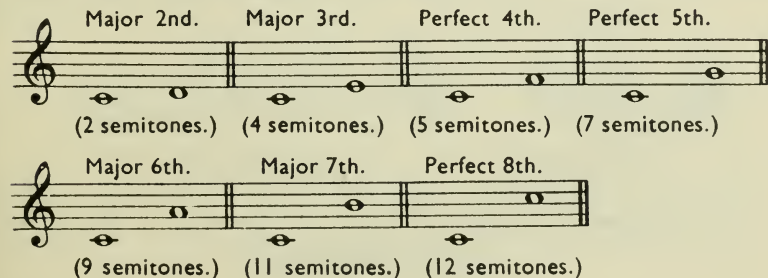


4.—The **quality** of an interval depends upon the **number of semitones** contained therein. For instance, Exs. (i.), (vi.), and (vii.) contain *four* semitones each ; Exs. (ii.), (iii.), and (viii.), *three* ; and Exs. (iv.) and (v.), *two* ; and, according to the number of semitones they contain, would be described as major, minor, and diminished 3rds, respectively.

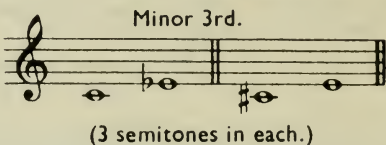
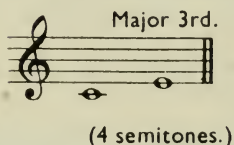
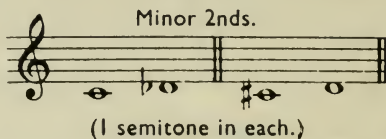
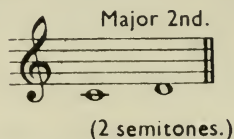
5.—The various kinds of interval produced in this way bear the following names :—

Imperfect.	(i.)	Perfect	...	(applied only to 1sts, 4ths, 5ths, and 8ths).
	(ii.)	Major	...	{ (" " 2nds, 3rds, 6ths, and 7ths).
	(iii.)	Minor	...	
	(iv.)	Diminished	(" " 3rds, 4ths, 5ths, and 7ths).	
	(v.)	Augmented	(" " 2nds, 4ths, 5ths, and 6ths).	

6.—The intervals **counted from the Tonic** to any of the notes of a major scale are either **major** or **perfect**, e.g. :—

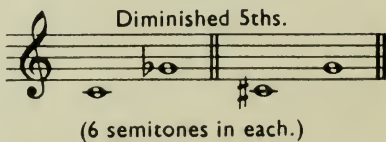
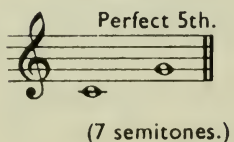
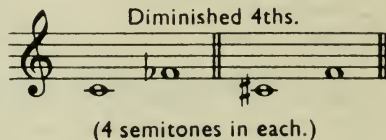
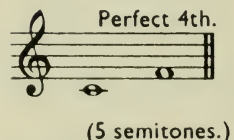
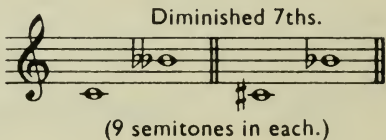
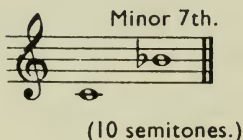
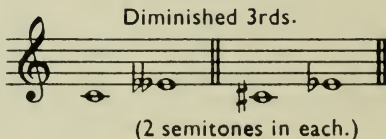
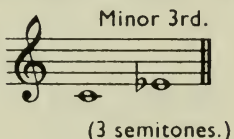


7.—A **minor interval** is formed by **lowering the upper note** of a major interval (or by *raising its lower note*) a chromatic semitone,* e.g. :—



—and similarly with the intervals of 6th and 7th.

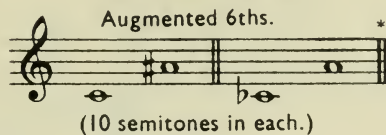
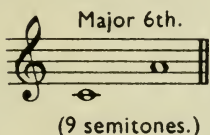
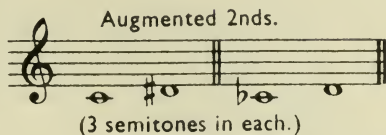
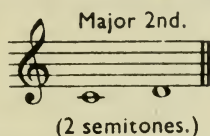
8.—A **diminished interval** is produced by similarly **lowering the upper note** of a *minor*, or a perfect interval (or by *raising its lower note*) a chromatic semitone, e.g. :—



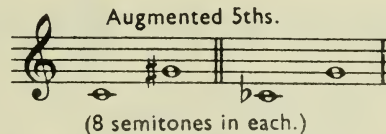
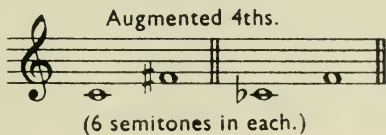
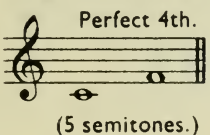
9.—An **augmented interval** is produced, conversely, by **raising the**

* Thus retaining letter-names.

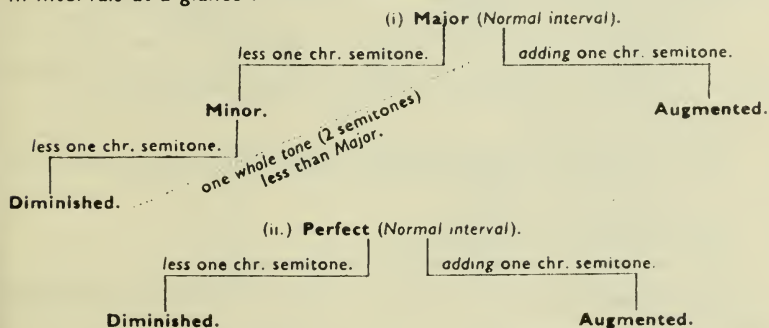
upper note of a major, or a perfect interval (or by lowering its under note) a chromatic semitone, e.g. :—



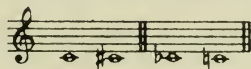
N.B.—The intervals of Diminished 6th and Augmented 3rd are not employed in chord-formation, therefore are not included here, being practically useless.



10.—The following diagrams will shew the scheme of varying qualities in intervals at a glance :—



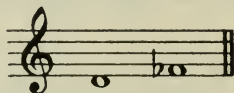
* The 1st and 8ve are sometimes augmented by a similar process ; but they are very rarely found in this form. The augmented 1st is better described as a Chromatic semitone, e.g. :—



11.—In order to **find the interval** between two sounds, it will be of service to remember the rule in Sec. 6. From this, and the statements in Secs. 7, 8 and 9, it is possible to form the following plan :—

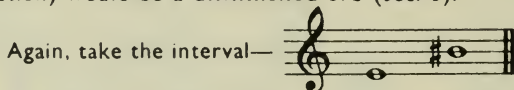
- (i.) Take the lower note of the given interval, and regard it as if it were the Tonic, or key-note of a major scale.
- (ii.) If the upper note corresponds to one of the degrees of the major scale of that Tonic, the interval will, as stated above, be either **major** or **perfect**.
- (iii.) If the upper note does *not* so correspond to one of the degrees of that major scale, its quality may easily be found by applying to it the rules in Secs. 7, 8 and 9 above.

The following examples will make this clear. Take the interval :—



Here regard the lower note as the tonic of the scale of D major. The interval is clearly a 3rd, as it contains *three* letter-names (Sec. 2). The interval of 3rd, counted from the tonic, in the major scale of D, is F#. This is a *major* 3rd, according to the statement in Sec. 6.

D to F# would be a *minor* 3rd (Sec. 7), and D to Fb (the interval in question) would be a **diminished** 3rd (Sec. 8).



Here regard the lower note as the tonic of E major. The interval is a 5th, as it contains *five* letter-names. The interval of 5th, counted from the tonic, in the major scale of E, is B. This is a *perfect* 5th (Sec. 6) ; consequently **E to B#** is an **augmented** 5th (Sec. 9).

12.—An interval is termed—

Consonant, or *Concordant*, when it is satisfactory *in itself*, and requires no other to follow it to complete its effect ; and

Dissonant, or *Discordant*, when, on the contrary, it *does* require another to follow it, to render its effect satisfactory.

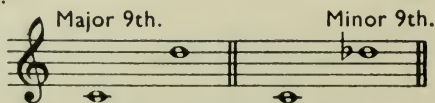
In the first class are :

- (i.) Major and Minor 3rds and 6ths.
- (ii.) All Perfect intervals (except, occasionally, the perfect 4th).
(See Chap. XIII, Sec. 13, foot-note).

In the second are included :

- (i.) All 2nds, 7ths, and 9ths.
- (ii.) All Diminished and Augmented intervals.

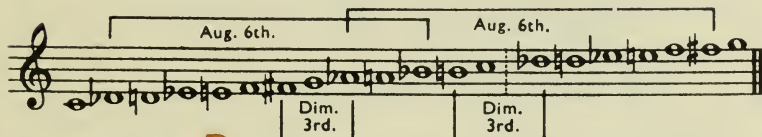
13.—Intervals beyond the limits of an Octave are called **Compound Intervals**, e.g. :—



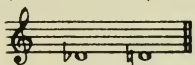
The intervals of 10th, 11th, 12th, &c., are more often spoken of, however, as 3rds, 4ths, 5ths, &c.

14.—The terms **Diatonic** and **Chromatic** are also applied to intervals. The former are those which can be found in any diatonic scale ; the latter those which occur only in the chromatic scale, viz. :—

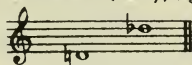
- (i.) The Chromatic semitone (or augmented 1st).
- (ii.) The Diminished 3rd.
- (iii.) The Augmented 6th.
- (iv.) The Diminished 8th.



Chromatic semitones and Diminished 8ths clearly occur between any two notes with the same letter-name, one of which is, however, of a different quality, e.g. :—



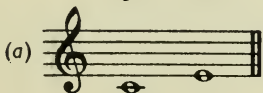
(Chromatic semitone.)



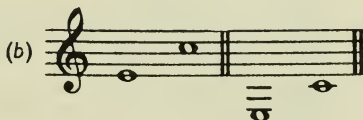
(Diminished 8th.)

15.—By **inverting** an interval is meant the changing of the relative position of the two notes, effected by placing the lower note an 8ve higher, or the higher note an 8ve lower, e.g.:—

Original interval.



Inverted interval.



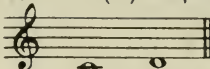
16.—The number of the original interval added to the number of the inverted interval produces **nine** :—

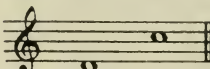
A 2nd inverted becomes a 7th	$2 + 7 = 9.$
A 3rd ,, ,, 6th	$3 + 6 = 9.$
A 4th ,, ,, 5th	$4 + 5 = 9.$
A 5th ,, ,, 4th	$5 + 4 = 9.$
A 6th ,, ,, 3rd	$6 + 3 = 9.$
A 7th ,, ,, 2nd	$7 + 2 = 9.$
An 8th ,, ,, 1st	$8 + 1 = 9.$

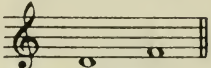
17.—Further, it should be observed that, when inverted—

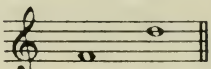
- { (i.) Major intervals become Minor. }
- { (ii.) Minor intervals become Major. }
- { (iii.) Diminished intervals become Augmented. }
- { (iv.) Augmented intervals become Diminished. }

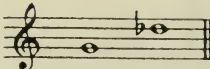
but that— (v.) *Perfect intervals remain Perfect.**

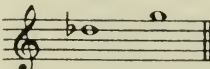
Thus,  is a Major 2nd ; therefore its inversion

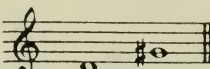
 is a Minor 7th.

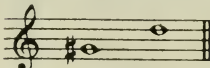
Similarly,  is a Minor 3rd ; therefore its inversion

 is a Major 6th.

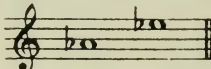
 is a Diminished 5th ; therefore its inversion

 is an Augmented 4th.

 is an Augmented 4th ; therefore its inversion

 is a Diminished 5th.

Finally,  is a Perfect 4th ; therefore its inversion

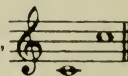
 is a Perfect 5th.

Instances might be multiplied, but the above will be quite sufficient to shew the working of the rules of inversion, as applied to intervals.

18.—The number of **semitones** contained in any interval added to those contained in its inversion will necessarily produce the number of semitones contained in an 8ve, viz. :—12, e.g.:—

The interval  contains 4 semitones ;

Its inversion  „ 8 „

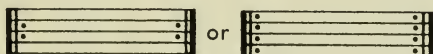
$4 + 8 = 12$ semitones, the number contained in the entire 8ve, 

* It is worth while to observe that the two notes of a perfect interval are always of the same quality, i.e., both sharp, both natural, &c.—with the exception of the perfect 5th between any B and F, and its inversion, the perfect 4th between any F and B.

CHAPTER X.

Signs of Abbreviation, Embellishment, &c.

1.—When it is desired that a section of a composition shall be **repeated**, such repeat is usually indicated by that particular section being marked off, at beginning and end, by double bars, the first of which has two or four **dots** placed *after* it, and the second, similar dots placed *before* it, thus :—



2.—If the repeat is to be made from the *beginning* of a piece of music, the first double-bar is unnecessary.

3.—When, on the repetition, an **alteration of the termination** of the passage is needed, this is indicated as under :—



Here, when the repeat is made, the bars marked *2nd time* are to be substituted for those marked *1st time*.

4.—Sometimes a repeat from the commencement of a piece is indicated by the words **Da Capo** (i.e., from the beginning), or merely the initials **D.C.**, placed at that point from which the return is to be made.

The term **Dal Segno** (i.e., from the sign), or merely the initials **D.S.**, similarly direct that such return shall be made to a point marked by this sign X . In both these cases the repetition is continued until the word **Fine** (end) occurs.†

5.—The word **bis** over a bar, or similar short passage, signifies that such bar or passage is to be performed twice. This sign is rarely met with now-a-days, except in MS. music.

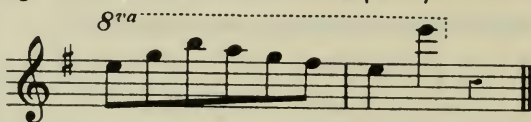
6.—The sign C , a **Pause**, over or under a note or rest has the effect of prolonging its length, the precise amount of such lengthening being left to the discretion of the performer. (See, however, foot-note to Sec. 4.) The words **Lunga pausa** (a long pause) shew that the pause is to be of considerable duration.

The initials **G.P.** (*Grosse, or General, Pause*) are sometimes met with in orchestral music, and indicate a pause for the whole band.

* Sometimes expressed in Italian, *1ma volta*, (i.e., *prima volta*), and *2da volta* (i.e., *seconda volta*) ; and sometimes by merely the figures 1 and 2 respectively.

† Sometimes a Pause C , over a double bar is substituted for *Fine*.

7.—To avoid the use of an inconvenient number of ledger lines, the extreme high notes above the staff are frequently written thus :—

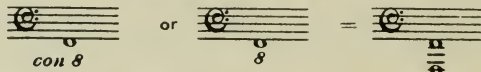


the sign **8va** (or merely 8.....), being an abbreviation of the word **ottava**, and indicating that the sounds over which it and the dots following it are placed are to be played an octave higher. The resumption of the ordinary pitch is indicated by the cessation of the dots, or sometimes by the term **loco** (*in place*).

8va bassa (Ottava bassa), or **8va sotto** (Ottava sotto), under the bass staff indicates similarly that such notes are to be played an octave lower.

Con 8 (or 8) under a bass-note means that such bass-note is to be accompanied by its

Octave below, thus :—



8.—The signs $\{$ and $($ placed before a chord (see App. A), indicate

that the notes of that chord are not to be played together, but in **arpeggio** (Ital. *arpa*, a harp), i.e., in rapid succession, beginning with the lowest :—



the whole chord being held when all the notes have been sounded.



9.—The term **legato** (i.e., bound) implies that two or more consecutive notes (or chords) are to be performed in a smooth, connected manner ; and, in an extended passage, this word is sometimes written to express this effect. Much more frequently, however, a curved line, \frown or \smile (called a **slur**) is used, and it is understood that all notes included within such curve are to be played *legato*,* e.g. :—

* The use of the **slur** is inseparably bound up with the art of **phrasing**, into which it is impossible to enter fully here. Suffice it to say that, in **Pianoforte-playing**, when two successive notes, or chords are connected by a slur, the first of such notes or chords is to be played with additional stress, and the second not only made slighter than usual, but perceptibly shorter, by the hand being raised from the keys, e.g. :—



In **music for bowed instruments** the slur usually indicates the number of notes to be taken with one stroke of the bow ; in **vocal music**, the number of notes to be sung to one syllable.

(a) Chopin. &c.

(b) Chopin. &c.

10.—In the first of the above examples, it will be noticed that the two C's at the commencement of the passage are joined by a small curve. When two notes of the same pitch are so connected, the curve is not a "slur," but a **tie** (or "bind"), and indicates that only the first of such notes is to be struck, but that this is to be **prolonged** by the value of the second. This same rule would hold good, whatever number of notes were tied together, e.g.:—

(a)

(b) &c.

In every case the prolonged sound is **equal in duration** to that of all the notes so tied together.

Occasionally, in the works of Beethoven and Chopin, two notes of the same pitch are connected by a curved line, the second of the two having a "staccato" mark over it, thus :—

Beethoven.—Sonata, Op. 110.

Chopin.—Valse, Op. 34, No. 1.

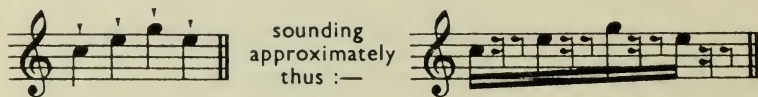
In such cases they are not intended to be tied. The first note is to be played with the usual amount of tone, and connected closely with the

second, which is played with a much diminished tone—producing somewhat of the effect of an echo. This was originally a “grace” connected with the old clavichord, and it is not possible to reproduce it accurately on the modern Pianoforte, although the above-named writers have sought to imitate it in this way. It was entitled the “Bebung.”

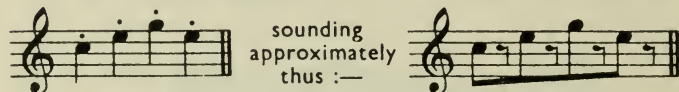
11.—When, in contradistinction to *legato*, notes are to be **detached** from one another, and played or sung in a short, crisp, manner, the effect so produced is called **staccato**.

There are **three kinds** of *staccato* in general use, indicated by one of the following signs placed over (or under) the notes desired to be so performed :—

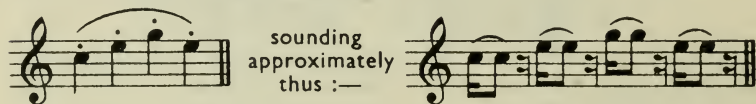
(i.) By a dash :—



(ii.) By a dot :—

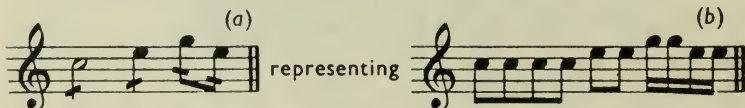


(iii.) By a dot combined with a curve, or slur (generally termed **mezzo-staccato** or **portamento**) :—

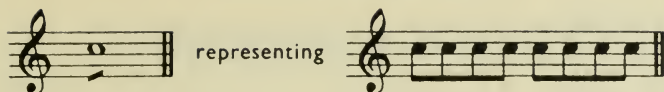


12.—Two or three abbreviations, more frequently found in music for orchestral instruments than in that written for the pianoforte or organ, remain to be noticed.

(i) The signs for reiterated notes, e.g.:—

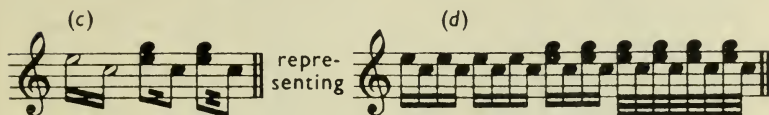


One stroke through the stem of a note signifying *quaver* repetitions ; two strokes, *semiquaver* repetitions ; three strokes, *demi-semiquaver* repetitions ; and so on. In the case of notes having already one or more hooks, or tails, each hook or tail counts for one stroke (See (a) above, sounding as at (b)). In the case of a semibreve, the strokes are placed above or below, e.g.:—



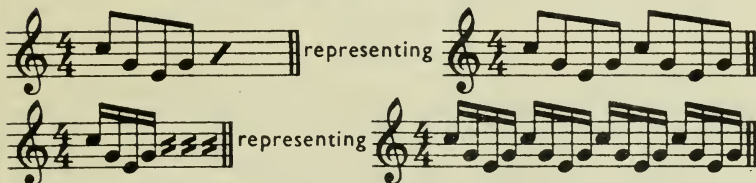
When very rapid, this effect is called *tremolo*.

(ii.) **The signs for rapid alternations of notes**, e.g. (sometimes called "legato tremolo") :—



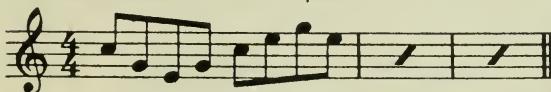
NOTE.—When two minims (or two semibreves) are joined by quaver, semiquaver, or demi-semiquaver, &c., tails, as at (c), the number of alternations is to be equal to the value of *one* of the written notes. (See (d).)

(iii.) **The sign for repeated groups**, e.g.:—



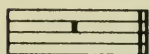
one oblique stroke being used as often as it is desired to repeat a group of quavers ; two such strokes being similarly used in the case of semiquavers ; three in the case of demi-semiquavers, and so on.

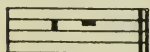
If an **entire bar** is to be repeated, it is often indicated thus :—

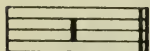


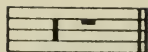
Here, in bars 2 and 3, the figure given in bar 1, is to be played twice more. Sometimes the following sign is used for the same purpose, $\%$.

(iv.) **The signs for rests of more than one bar**, e.g.:—

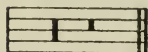
 representing two consecutive bars rest. (See, however, Chap. V, Sec. 4.)

 representing three consecutive bars rest.

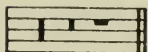
 „ four „ „



representing five consecutive bars rest.

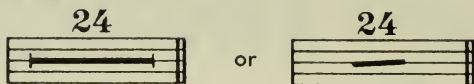


.. six



.. seven

A rest of greater duration than seven bars is represented merely by a figure, thus :—



This plan is much to be recommended also for the smaller numbers, instead of the cumbersome method described above, for which there would appear to be little reason, and still less practical use.

CHAPTER XI.

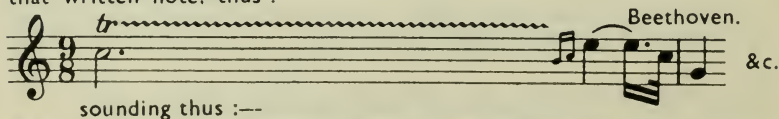
Ornaments.

1.—The principal, if not the only, ornaments or graces in general use at the present day are (i.) the **shake**, or **trill** ; (ii.) the **turn** ; (iii.) the **acciaccatura** ; (iv.) the **mordent**.

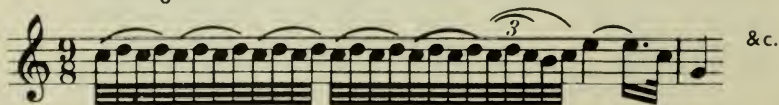
2.—Formerly, in the days prior to the introduction of the modern Pianoforte—when the expressionless Harpsichord was the only keyed instrument, other than the organ, in general use—composers were obliged to add to the interest of their music by the employment of various other embellishments, in order to give some semblance of accent to their passages, and to compensate, in some small degree, for the lack of variety in tone.

3.—Very many of these ornaments are now entirely obsolete, and are of no interest, except to the musical antiquarian ; one or two, however—notably the **appoggiatura**, and the **extended lower mordent**—have still a practical value for the present-day student. Both of these are constantly to be met with in the works of Bach and Handel, while Haydn and Mozart frequently employ the *appoggiatura*.

4.—The **shake**, or **trill**, consists of a rapid and regular alternation of a principal (written) note with the note alphabetically next above it, and is usually expressed by the letters **tr.** (abbreviation of the Italian *trillo*) above that written note, thus :—

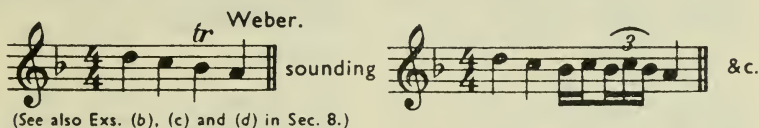


sounding thus :—



5.—It will be seen that, in the above example, **two small notes** are written (the first being the note *below* the principal note), to form a finish to the shake ; this termination is usually required (even if not indicated in writing).

6.—Sometimes, however, if the shake is followed by one or more unaccented notes, it is played without this form of termination, but care must be used that it always ends on its principal note, e.g. :—

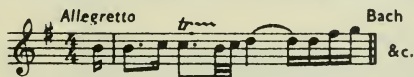


7.—In each of these cases (Secs. 4 and 6), a **triplet** is introduced in order that the shake may finish on the principal note ; if there is an "**ending**" (or "**turn**," as it is sometimes called), such as is described in Sec. 5, this triplet will **precede** it (see Ex. in Sec. 4). If, on the contrary, there is no "**ending**," the triplet will come **immediately before the next written note**. (See Ex. in Sec. 6.)*

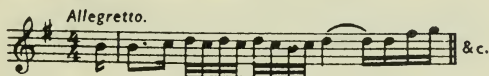
8.—The **number of alternations** of the two notes of a shake largely depends upon the **speed** of the music, and the **length** of the written note ; in quick time, or in the case of a shake upon a short note, it often assumes such forms as the following :—

* A point upon which there is some little divergence of opinion is as to whether a shake should begin upon the written note, or upon the note above.

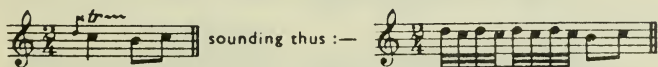
The matter cannot be dealt with in detail here ; but, generally speaking, the student may take it as a safe rule that, in **modern music** (except at times in that of Chopin), the **shake should begin with the written note** (as in the examples in Secs. 4 and 6). In the case of Haydn and Mozart, and more especially **older masters**, such as Bach and Handel, it is usually more appropriate to begin the shake with the **upper note**. This rule is **inflexible** when the shake is **preceded by another note of the same pitch**, as at (a).



Here the correct rendering would be as follows :—



N.B.—The commencement of a shake upon its **upper note** is now-a-days frequently indicated thus :—



Observe that the triplet mentioned in Sec. 7 is necessary **only when the shake begins on its principal note**.

Allegro.
(a) *tr* sounding *Allegro.* *3*

Moderato.
(b) *tr* *tr* sounding *Moderato.* *3* *3*

Allegro molto.
(c) *tr* *tr* sounding *Allegro molto.* *3* *3*

Allegro molto.
(d) *tr* *tr* sounding *Allegro molto.* *3* *3*

In all these cases, the character of the passage must largely influence the rendering.


9.—A ♮, ♯, b, × or \flat , over a shake shews that the note above the principal, or written one, should be **inflected** accordingly :—

b *tr* sounding *3*

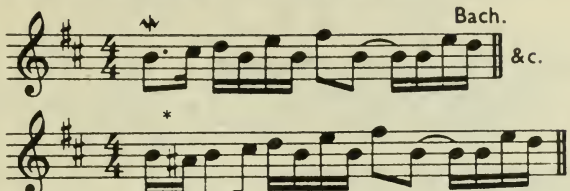
10.—The **mordent** consists of a **single** rapid alternation of a written note and the note next alphabetically above it, and is indicated thus, ♯


Allegro. *Chopin.* *&c.*
(a) sounding— *&c.*

Andante. *Bach.*
(b) sounding—

11.—The **lower mordent**, indicated thus , implies a similar alternation of a principal note and the note **below** it, e.g. :—


sounding—



12.—The **turn**, or *gruppetto*, , is an ornament consisting of four notes, played or sung after a principal, written note, as follows :—

- (i.) The note above it.
- (ii.) „ written note.
- (iii.) „ note below it.
- (iv.) „ written note again.

The following example will make this clear :—



In performance, the principal note is held for a large part of its value (generally either a *half* in quick "tempo,"† and *three-quarters* in slow "tempo"‡), and the four notes of the turn occupy the remaining half, or quarter, as the case may be,§ e.g. :—

Allegro vivace. Beethoven.



Here the principal note takes one-half of its written value.

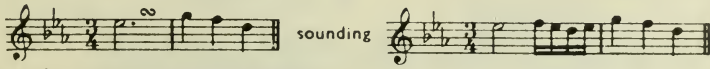
* The # is here required to conform to the key of B minor, in which the passage is written.

† Or in the case of a comparatively short note.

‡ Or in the case of a comparatively long note.

§ Often, in triple time, or in the case of the dotted beats of compound time, the principal note takes two-thirds, e.g. :—

Beethoven.



or even five-sixths in very slow "tempo."

Adagio. Beethoven. &c.

sounding—

Adagio. &c.

Here the principal note takes three-quarters of its written value, to prevent the turn sounding dull and heavy.

13.—When a turn occurs **after** a dotted note, the written note most frequently takes *half* its own value ; the first three notes of the turn take the remaining half, in the form of a triplet ; and its final (fourth) note has the value of the dot, e.g.:—

Allegro. Beethoven. &c.

sounding—

&c.


N.B.—This rule admits of some relaxation occasionally in slow "tempo," and applies *only* to those cases in which the dot forms the *beginning* of a new beat, or division of a beat.

(Compare this example with that given in foot-note to Sec. 12.)

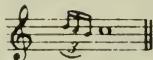
14.—When a turn is placed **over** a note, the turn generally begins at once with the note above the written one,* e.g.:—

Andante. Mozart.

sounding—

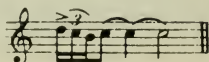
* A turn over a long note, } thus :  has the effect of the three grace notes

often found before such a note, thus :



(See Sec. 18 below)

and should be rendered approximately thus :—



but sometimes the written note is played first, and, together with the four notes of the turn, forms a group of five equal notes, e.g.:—

Mozart.




The character of the passage must largely determine which interpretation the turn is to bear.

15.—An **accidental** written under or over a turn indicates that the note below or above the written note (as the case may be) is to have a similar accidental, thus—(See also examples in Secs. 13 and 14)

(a)

(b)

(c)

16.—An **inverted turn** (indicated variously by the signs , , and ), is a turn in which the note *below* the principal (written) note comes first, the note *above* appearing later, e.g.:—

(Compare this with the example given in Sec. 12.)

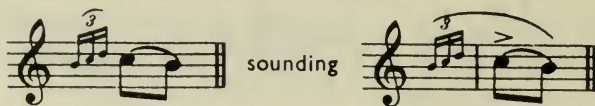
N.B.—This ornament is usually written out in full.

17.—An **acciaccatura** (lit., “crushing-note”) is a quaver of small size, with a stroke through the stem and hook (see (a) in example below) played or sung as quickly as possible, immediately proceeding to the note before which it is placed—and from which it takes no appreciable value :—

(a) Beethoven.

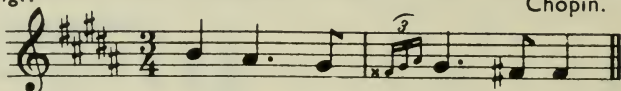
&c.

18.—Sometimes **groups of small notes** are found preceding others of full-size. In such a case the group of small notes is performed more or less rapidly, the accent frequently falling on the **principal note**, thus :—

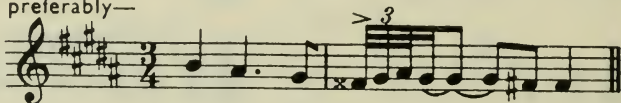


This rule admits, however, of many exceptions, especially in modern music : the accent often more appropriately falling on the **first of the small notes**, e.g. :—

Chopin.



sounding preferably—



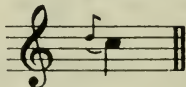
Such niceties of performance must, of necessity, depend largely upon the character of the passage in question.

Ornaments of less frequent occurrence.

19.—As was stated above (Sec. 3), there are two signs of ornament which, though frequent in the works of Bach and Handel, are now practically obsolete, composers preferring to indicate their effect by writing them out in full. These are the **appoggiatura** and the **extended lower mordent**.

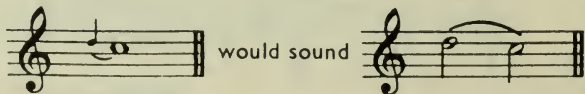
The **appoggiatura** (lit., *leaning-note*), is expressed by a small note

preceding a principal one, thus :—

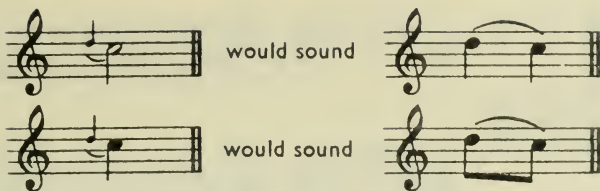


differing in

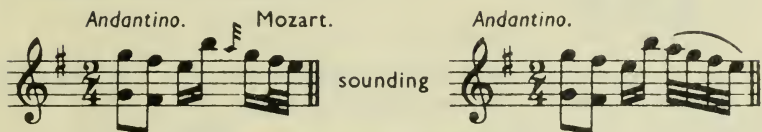
appearance from the *acciaccatura* in the absence of the stroke drawn through the stem.* Moreover, an *appoggiatura* could be of any length, —minim, crotchet, quaver, and so on—the rule being that it should **take its own value from the note that it preceded**—generally *one-half*—as the *appoggiatura* was nearly always written as a small-sized note of half the value of that principal note—the *appoggiatura* coming *upon* the accent. Thus :—



* It is to be regretted that older composers were often very lax in the writing of these signs, often confusing them, and rendering their performance as "appoggiaturas" or "acciaccaturas" purely a matter of conjecture based upon the inherent character of the passage.




and so on.*





20.—An *appoggiatura* before a dotted-note usually takes approximately two-thirds (or sometimes one-third) of the note it precedes, e.g. :—



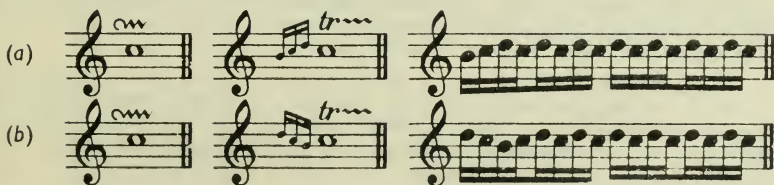
21.—The *prolonged*, or *extended*, *lower mordent*  is an inverted (or, lower) mordent with two alternations instead of one, e.g. :—



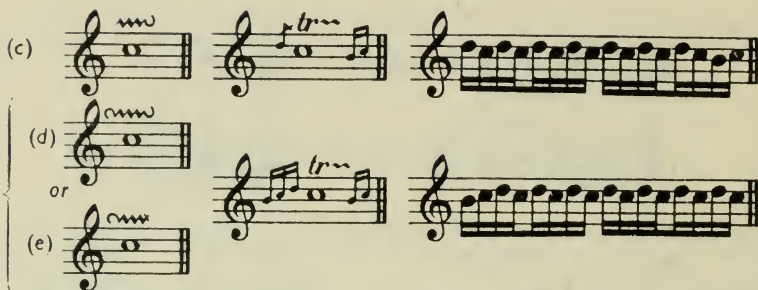
22.—A *shake*, or *trill*, is often found indicated in *old music* by one of the following signs, , or , a hook sometimes occurring at one end, or at both ends, e.g. :—

Old signs. *Modern equivalents.*

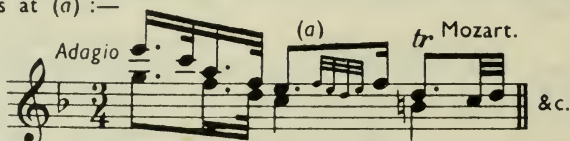
Actual renderings.



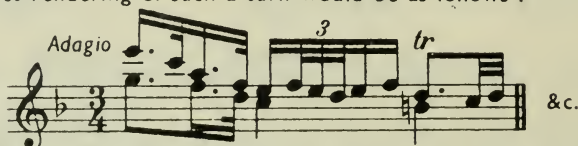
* Modern composers, from Beethoven onwards, write the *appoggiatura* in full-sized notes, **exactly as it sounds**.



23.—In the music of Mozart and Haydn, the **turn** after a **dotted note** is sometimes **inaccurately written out** in four small notes of equal length, as at (a) :—



The correct rendering of such a turn would be as follows :—



Fortunately, composers are more particular now-a-days as regards accuracy in expressing the effects they intend, and the meanings of the various signs employed have not to be gauged by the general tenor of the passages in which they occur.

CHAPTER XII.

Italian and other Terms used in Music.

1.—The various degrees of speed and of intensity of sound, as well as directions as to the style in which passages are to be performed are generally indicated by the composer. In former times such indications were often meagre, and much was left to the good sense and taste of the executant ; now-a-days, however, when gradations—especially of tone—are so minute, and so important to the effect of the music, much more care is paid to the marking of the exact manner of performance.

2.—It has always been found advantageous to have these directions written in a language that should be regarded as universal, and Italian has long been used for this purpose, although some German composers, notably Schumann, have preferred to us their own native tongue, the object of which proceeding is not very clear.

3.—The following are the more frequent terms occurring in both vocal and instrumental music :—

Speed :—

Adagio, leisurely ; *Molto Adagio*, very slow.
Adagissimo, slower than *Adagio*.
Affrettando, hastening the speed.
Alcuna, some ; e.g., *con alcuna licenza*, with a certain degree of (i.e., some) license.
Allegro, merry, lively, fast.
Allegretto, not so fast as *Allegro*.
Andante, going at a moderate pace.
Andantino, not so slow as *Andante*.
Grave, grave, solemn.
Incalzando, increasing both in tone and speed.
Largamente, } broad, ~~slow~~.
Largo, } ^{biggest}
Larghetto, not so ~~slow~~ as *Largo*.
Lento, very slow.
Moderato, at a moderate pace.
Presto, quick.
Prestissimo, very quick.
Risvegliato, with animation.
Slargando, } getting slower.
Slentando, }
Sopra, above.
Sotto, below, under.
Tempo comodo, in convenient time.
Tempo ordinario, in ordinary time.
Tempo primo, at the original speed.
Vivace, lively, quickly.

Modifications of Speed :—

Allargando, decreasing the speed, broadening.
A tempo, in time.
Ad libitum or *A piacere*, at pleasure.
Doppio movimento, at double the pace.
L'istesso tempo, in the same time ; i.e., the beats to have the same duration, however they may be expressed in notation.
Meno allegro, less fast.
Meno mosso, less moved, slower.
Più mosso, more moved, quicker.
Ritardando (*ritard.*), holding back } getting slower.
Rallentando (*rall.*), slackening the pace }
Ritenuto (*rit.*), held back, slower.
Accelerando (*accel.*), accelerating the pace } getting faster.
Stringendo, pressing onwards }

Intensity of Sound :—

Crescendo (*cres.*), or < getting louder.
Decrescendo (*decre.*), } or > getting softer.
Diminuendo (*dim.*), }
Forte (*f*), loud.
Fortissimo (*ff*), very loud.
fff, as loud as possible.

Mezzo-forte (mf), half loud, or moderately loud.

Mezzo-piano (mp), half or moderately soft.

Piano (p), soft.

Pianissimo (pp), very soft.

ppp, as soft as possible.

Dolce, softly, sweetly.

Calando, decreasing.

Mancando, waning in tone.

Morendo, dying away.

Perdendosi, losing itself.

Smorzando, extinguishing.

Forte piano (fp), loud, then soft.

Sforzando (sf), > or \wedge , forcing.

Forzato (fz), forced.

Rinforzando (rf or rinf.), enforcing.

} Getting slower and softer.

} Terms used to indicate
increased accent upon a single
note or chord.

Other terms relating to manner of performance :—

A, at, for, with.

A capella, in the church style.

Affettuoso, affectionately.

Agitato, in an agitated manner.

Amabile, amiably.

Amoroso, lovingly.

Animato, animated.

Appassionato, passionately.

Assai, ~~sufficiently~~, very.

Attacca, go on at once.

Bene or *Ben*, well.

Ben marcato, well marked.

Brillante, brilliantly.

Brioso, with vigour.

Cantabile or *cantando*, in a singing style.

Col or *Colla*, with the.

Col arco, with the bow (applied to instruments of the violin family).

Colla parte, or *Colla voce*, keeping closely with the solo part or voice.

Come prima, as at first.

Come sopra, as above.

Con, with.

Con amore, with love.

Con anima, with soul.

Con brio, with brightness and vigour.

Con delicatezza, delicately.

Con dolore or *Con duolo*, with grief.

Con espressione, with expression.

Con energia, with energy.

Con forza, with force.

Con fuoco, with fire.

Con grazia, with grace.

Con moto, with movement.

Con sordini, with mutes (applied to instruments of the violin family).

Also used occasionally (especially by Beethoven) to indicate the release of the damper pedal of the Pianoforte.

- Con spirito*, with spirit.
Con tenerezza, with tenderness.
Da capo, from the beginning.
Dal segno, from the sign.
Deciso, decidedly.
Delicatamente or *Delicato*, delicately.
Dolce, sweetly.
Dolente, or *Doloroso*, sadly, with grief.
E or *Ed*, and.
Energico, with energy or force.
Espressivo, with expression.
Forza, force.
Fuoco, fire.
Furioso, impetuously ; with fury.
Giocoso, or *Giocosamente*, gaily, jocosely.
Giojoso, joyously.
Giusto, exact.
Grandioso, grandly.
Grazioso, gracefully.
Il or *La*, the.
Impetuoso, impetuously.
Legato, smoothly ; bound.
Leggiero or *Leggieramente*, lightly.
Lusingando, soothingly.
Ma, but.
Maestoso, majestically.
Maggiore, major.
Main droite (Fr.), or *M.D.*, } with the right hand.
Mano destra (Ital.), or *M.D.*, }
Main gauche (Fr.), or *M.G.*, } with the left hand.
Mano sinistra (Ital.), or *M.S.*, }
Marcato, marked.
Martellato, with great force ; hammered.
Meno, less.
Mesto, sadly.
Mezzo, half ; *mezza voce*, half voice, ~~in an undertone~~.
Minore, minor.
Molto or *Di molto*, much ; very.
Mosso or *Moto*, movement.
Non, not.
Parlando or *Parlante*, in a speaking manner.
Pastorale, in a pastoral style.
Ped. (abbreviation of *pedale*), indicates the use of the right, or damper, pedal of the Pianoforte.
Pesante, heavily.
Piacevole, pleasantly.
Piangevole, plaintively.
Più, more.
Più tosto, rather more quickly.
Pizzicato (*pizz.*), plucking the string (applied to bowed instruments).
Poco or *Un poco*, a little.
Poco a poco, little by little.

Poi, then.

Pomposo, pompously.

[note to another in singing.

Portamento, implies the extremest smoothness (or carrying) from one *Quasi*, almost, as if ; e.g., *Quasi una fantasia* (Beethoven), as if in the style of a fantasia.

Replica, repeat.

Risoluto, resolutely.

Scherzando or *Scherzoso*, in a sprightly, playful manner.

Sciolto, freely, easily.

Sec. (Fr., lit., dry), short, crisp.

Segue, follow on at once.

Semplice, simply.

Sempre, always.

Senza, without ; *senza sordini*, without mutes (applied to instruments of the violin family). Also sometimes used to indicate the depression of the damper pedal of the Pianoforte.

Serioso, seriously.

Simile, in the same manner.

Soave, sweetly, gently.

Sostenuto, sustained.

Sotto voce, in a subdued manner ; lit., under the voice.

Staccato, short and detached.

Strepitoso, in a loud, boisterous manner.

Sul ponticello, near the bridge (applied to bowed-instruments).

Tacet, be silent.

Tanto, so much.

Tempo rubato, robbed time ; the slight alterations of speed which a performer makes for the purpose of expression in particular passages.

Tenuta, *Tenute*, *Tenuto*, held on, sustained.

Tranquillo or *Tranquillamente*, tranquilly. [pedal.

Tre corde (lit., three strings), signifies the release of the left, or soft,

Troppo, too ; too much. *Non troppo*, not too much.

Un or *una*, one.

[the Pianoforte.

Una corda (lit., one string), signifies the use of the left, or soft, pedal of

Veloce, rapidly.

Vigorouso, vigorously.

Vivo or *Con vivacità*, with vivacity.

Volante, in a light, flying manner.

Volti subito or *V.S.*, turn over quickly.

The following German terms are frequently to be met with in Modern Music :—

Aber, but.

Ausdrucksvoll, with expression.

Bestimmt, with decision.

Beweglich, with movement ; the equivalent of *con moto* in Italian.

Bewegt, moved.

Bogen, with the bow, the equivalent of *arco* or *col arco* in Italian.

Breit, broadly.

Doch, but, yet.

Einfach, simply.

Etwas, some, somewhat ; e.g., *etwas bewegt*, somewhat moved.

Gebunden, connected.

Gehalten, sustained.

Gestossen, short, detached ; the equivalent of *Staccato* in Italian.

Geschwind, quickly.

Immer, always.

Kräftig, with energy.

Kurz, short.

Langsam, slowly.

Lebhaft, lively.

Leicht, lightly.

Leise, lightly, softly.

Markirt, marked.

Mässig, moderate ; e.g., *mässig bewegt*, moderately moved, or moderately quickly.

Mit, with.

Munter, lively ; the equivalent of *Allegro* in Italian.

Nicht, not.

Noch, still more ; e.g., *noch schneller*, still quicker.

Rasch, quickly.

Ruhig, calmly.

Schnell, quickly ; *so schnell wie möglich*, as quickly as possible.

Sehr, very.

Stark, strongly.

Und, and.

Wenig, little, e.g., *ein wenig langsamer*, a little slower.

Zart, soft.

Ziemlich, rather moderately.

Zu, too.

CHAPTER XIII.

Harmony.

1.—Broadly, the study of **Harmony** may be said to be concerned with—

- (a) The combination of musical sounds into what are usually spoken of as chords ;
- (b) The classification of such chords ;
- (c) The relation of such chords to one another, particularly as to the various ways in which they may succeed each other.

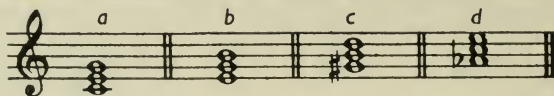
2.—Closely connected with, and inseparable from, these are—

- (a) **Melody** (or tune).
- (b) **Rhythm** (the intelligent division of music into periods or sentences).

two important factors in modern musical composition, without which Harmony alone would be dead and meaningless.*

* Here the author would enter an earnest and emphatic protest against that method of Harmony teaching which neglects—as is so often the case—any consideration of these vital characteristics in the exercises given to the student, exercises in which the only aim seems to be the mechanical classification of chords in his mind, without any attempt being made to cause him to realise that even the simplest chord progressions should be MUSIC !

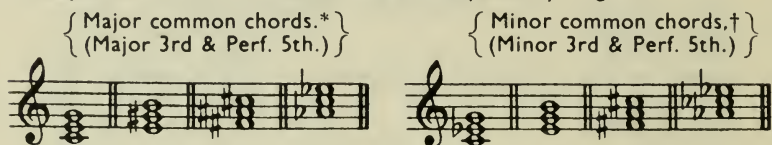
3.—When two or more musical sounds are sung or played together, a **chord** is produced, and the simplest kind of complete chord is formed by taking a *bass-note* (see App. A), and adding to it its 3rd and 5th; e.g. :—



This is called a **Triad**.

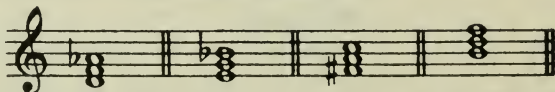
4.—The above example will shew that the quality of 3rd and 5th so added may vary. As a matter of fact, either a major or minor 3rd may be used, and either a perfect, diminished, or augmented 5th.

5.—When a triad has a perfect 5th, it is called a **common chord**. Common chords may have a major or minor 3rd, when they are described as **major or minor common chords** respectively, e.g. :—



6.—Common chords (either major or minor) are **concordant triads**, because they are satisfactory in themselves and need no other chord to follow them. (See Def. of *Concord*—App. A.)

7.—When a triad has a diminished 5th, it always takes with it a minor 3rd, and is called a **diminished triad**, e.g. :—



and when it has an augmented 5th, it always takes with it a major 3rd, and is called an **augmented triad**, e.g. :—

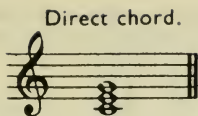


8.—Diminished and augmented triads are termed **discordant**, or **dissonant triads**, as they seem to require some other chord to follow them, to complete their effect. (See Def. of *Discord*—App. A.)

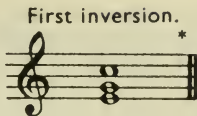
9.—An **inversion of a chord** is produced by placing any other note than its *root* (i.e., the note from which it is derived, and from which it takes its name) in the bass; e.g. :—

* Also described as Major triads.

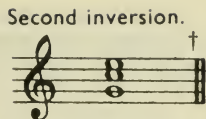
† Also described as Minor triads.



(Root in bass.)



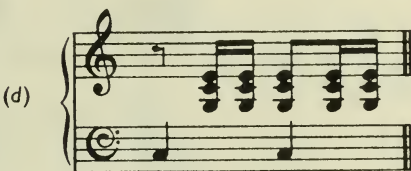
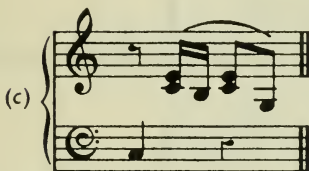
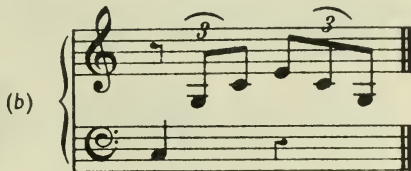
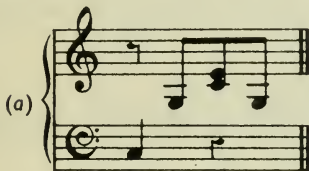
(3rd in bass.)



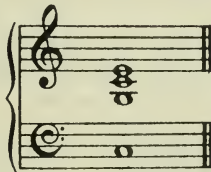
(5th in bass.)

10.—Chords are found with their notes placed in various orders, and they may be embellished by the addition of ornamental notes called passing-notes, suspensions, &c.—all of which will be spoken of later.

11.—It must be understood also that, in actual composition, chords are frequently found in a **broken form**, (i.e., with their notes dispersed in "arpeggiated" (see App. A, *Arpeggio*) and other figures), e.g. :—



These, and many others that might be given, are all variations upon the chord—



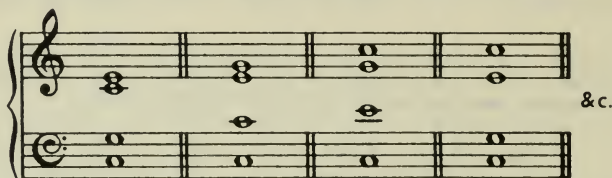
which, in itself, is merely a fuller aspect of the common chord marked (a) in Sec. 3 above, caused by writing the bass-note an 8ve lower, and **doubling** it (see Sec. 13) and by placing the 3rd of the chord at the top, and the 5th next to the bass-note.

* The 1st inversion of a triad is often called a "chord of the 6th."

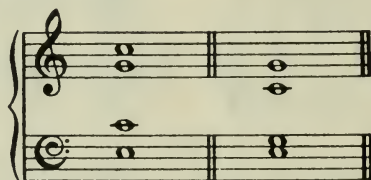
† The 2nd inversion of a triad is often called a "chord of the six-four." (See Sec. 26.)

12.—Chords are mostly written in **four parts**—the most complete and satisfactory effect being usually obtainable thus, when written for voices.

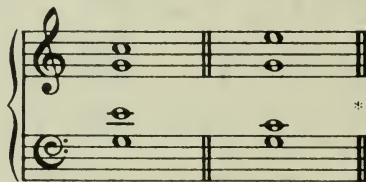
13.—When four voices sing a triad, one of the notes is always **doubled**, i.e., used twice in the same chord :—



When a chord is *direct*, this is nearly always the **root**, as in the above example ; in the case of a 1st inversion, either the **3rd** or the **6th** from the *bass-note* is doubled, usually, thus :—



while, in a 2nd inversion, the **bass-note** is by far the best note to double, e.g. :—



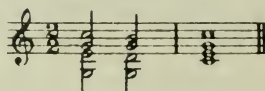
14.—Here is a table, shewing the **position of the various triads**, and their inversions, in both major and minor forms of a key.

N.B.—Major Common Chords are written as white notes.

Minor Common Chords are written as black notes.

Diminished and Augmented Triads in small type, in brackets.

* The position of the root of the chord as a 4th above the *bass-note* of a 2nd inversion gives somewhat of the effect of a **discord**, requiring some other chord to succeed. This accounts for the fact of a 2nd inversion of a triad being always followed in a definite way. Its **most usual progression** is to a direct common chord upon the same *bass-note*, e.g. :—



C. Major.

Direct triads.

1st inversions.

2nd inversions.

(not used) (not used)

(a) Available generally as a concord.

C. Minor.

Direct triads.

1st inversions.

2nd inversions.

(not used) (not used)

(b) Available generally as concords.

15.—The **Chord of the Dominant 7th** is formed by adding a minor 7th to the common chord on the Dominant of any scale, e.g. :—

(In C major.)

(In C minor.)

It is a discord and consequently requires **resolution**, i.e., a fixed, definite progression. It most usually resolves upon the common chord of the Tonic, thus :—

(C major.)

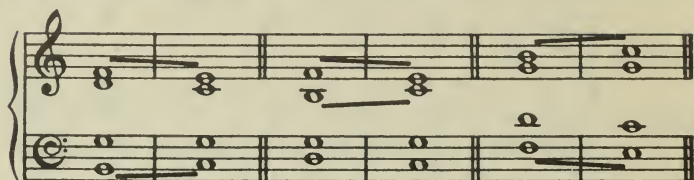
(C minor.)

(a)

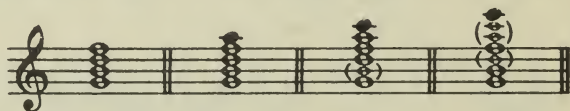
(b)

the 3rd of the Dominant 7th chord rising one semitone, and the 7th falling a 2nd (major or minor).

It has 3 inversions, as follows :—



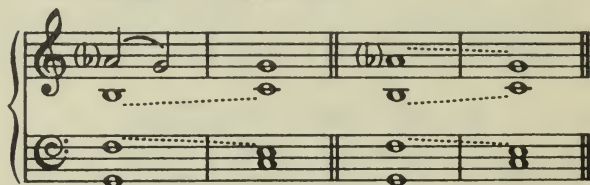
16.—The addition of 3rds to the chord of the Dominant 7th produces the chords often spoken of as the Dominant 9th, 11th, and 13th, thus :—



N.B.—The small notes in brackets are generally omitted.

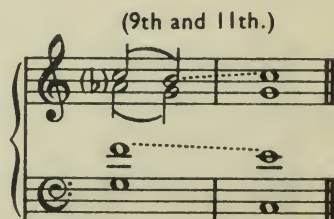
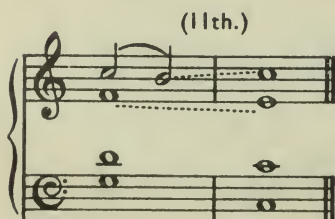
Here are some frequent examples of these chords :—

(i.) **Chord of the Dominant 9th.**



N.B.—The 9th may be either a major or a minor 9th in the major form of a key : in the minor form, the 9th is minor.

(ii.) **Chord of the Dominant 11th.**



* These examples may occur equally well in the minor mode of the key.

(iii.) **Chord of the Dominant 13th.**

(13th.)

(9th and 13th.)

(11th and 13th.)

N.B.—In the minor form of a key, the 13th is *minor*.

All these chords may be taken in their various inversions, the note upon which the 9th, 11th, or 13th resolves being nearly always omitted from the chord, e.g. :—

Dominant 9th
(1st inversion).

(Root omitted.)

Dominant 11th
(2nd inversion).

(3rd omitted.)

Dominant 13th
(3rd inversion).

(5th omitted.)

17.—All these examples can be taken in the minor mode of the key, with the substitution of a *minor* 9th and a *minor* 13th for the major 9th and 13th, respectively.

18.—**Modulation**, or change of key, takes place when a chord *not* in the original key is introduced, and followed by another chord, or chords, defining the new key, e.g. :—

(See "Practical Harmony," Chap. XI.)

19.—A **chromatic chord** is a chord that contains one or more notes needing *accidentals*, but which does not change the key, e.g. :—

Chromatic chord.

20.—The following specially-named chords are often met with :—

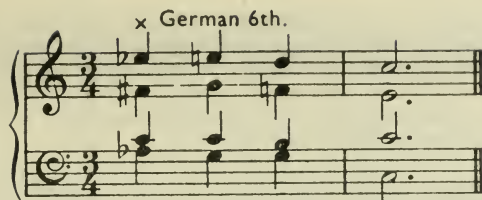
- (i.) The "**Neapolitan 6th.**"
 - (ii.) The "**Italian 6th.**"
 - (iii.) The "**French 6th.**"
 - (iv.) The "**German 6th.**"
 - (v.) The "**Added 6th.**"
- } Varieties of one chord.

The **Neapolitan 6th** is the first inversion of a chromatic major common chord upon the minor 2nd of the scale, e.g. :—

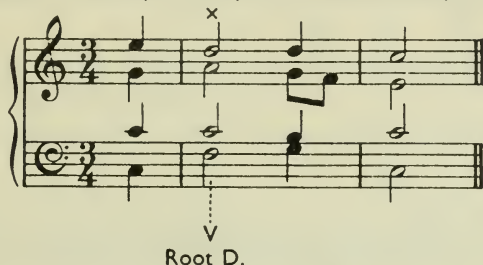
The **Italian, French, and German 6ths** are the three forms of the *chord of the Augmented 6th*, occurring most usually upon the minor 6th of a scale, and resolving generally either upon the common chord of the Tonic or the Dominant, e.g. :—

× Italian 6th.

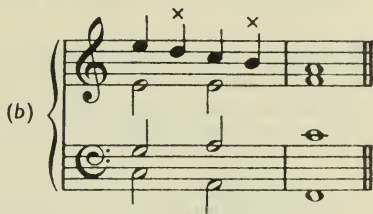
× French 6th.



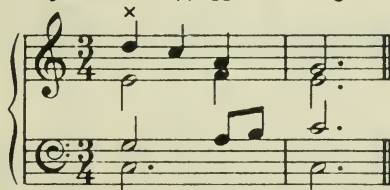
The **Added 6th** is the first inversion of a chord of the 7th formed diatonically upon the supertonic of a key—usually called a **secondary 7th**, e.g. :—



21.—**Passing-notes** are notes used to fill the gaps, so to speak, in passing from one note of a chord to another, as at (a), or from a note of one chord to a note of another chord, as at (b) :—



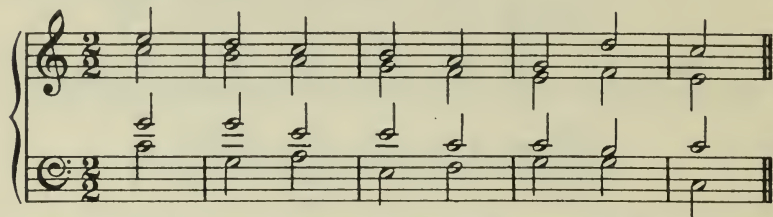
Sometimes a passing-note is **struck with the chord**, when it is called an **Accented Passing-note**, or *Appoggiatura* ; e.g. :—*



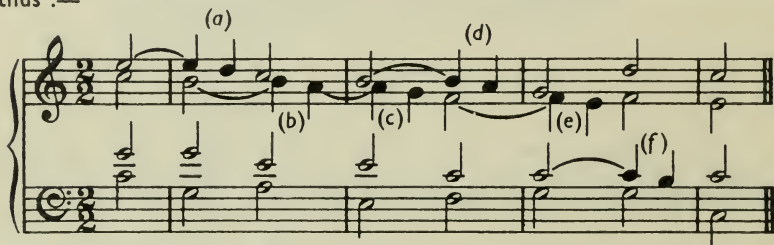
N.B.—Passing-notes are foreign to the chords against which they are taken, and are therefore termed **unessential discords**. They are usually approached and quitted by the step of a 2nd.

* Formerly written as a small note. (See Chap. XI, Sec. 19.)

22.—Another class of *unessential discord* is formed by **Suspensions**. A **Suspension** is the prolonging of a note of one chord while another chord is being sounded, *of which that note forms no part*. The note so retained moves by the descent or ascent of a 2nd to a note of the chord over which it has been held. The following examples will make this clear. Here is a passage of simple harmony :—



By the delaying of certain of the notes, *suspensions* can be introduced, thus :—



Suspensions **take their names** from the distance at which they stand from the **root** of the chord ; consequently the suspension at (a) is a suspended 6th ; that at (b) a suspended 9th ; and those at (c), (d), (e) or (f) are suspended 4ths.

23.—A **Sequence** is the repetition of a progression of melody or harmony upon other degrees of the scale, e.g. :—



24.—A **Pedal**, or **Pedal-note** is a note, usually in the bass, sustained through a succession of harmonies, of which it may, or may not, form a part, e.g. :—

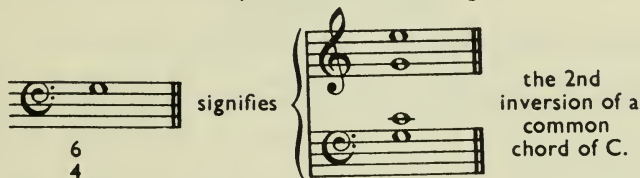


The notes almost exclusively used as Pedals are the **Dominant** and the **Tonic** of any key. The above example shews an instance of a Dominant Pedal.

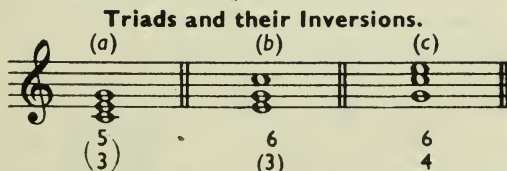
25.—A **Cadence** is the completion of a phrase, or rhythmical period. There are *four* principal cadences, viz. :—

- (a) The **Perfect** (or *Authentic*) **Cadence**, when a phrase ends with the Tonic chord, preceded by that of the Dominant ;
- (b) The **Imperfect** (or *Half*) **Cadence**, when a phrase ends with the chord of the Dominant ;
- (c) The **Interrupted Cadence**, when the course of the music leads one to expect a perfect cadence, but when some other chord is substituted for that of the Tonic : often that of the *Sub-median* ;
- (d) The **Plagal Cadence**, when a phrase ends with the chord of the Tonic, preceded by that of the Sub-dominant.

26.—When **figures** are found under a bass-note, they indicate the intervals of the chord counted from that bass-note, e.g. :—

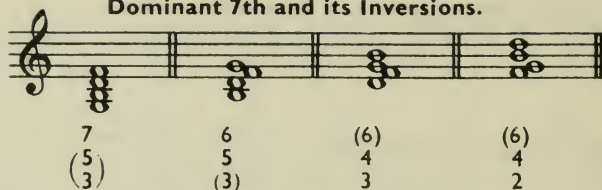


where the root of the chord, C, is a 4th above the bass, and the 3rd of the chord, E, is the 6th above the bass. The figuring of the simpler chords (viz., triads and the Dominant 7th) is as follows :—



The chord marked (b) is thus often called a **chord of the sixth**, while that at (c) is described as a **chord of the six-four**.

Dominant 7th and its Inversions.



N.B.—The figures in brackets are usually omitted.

An **accidental** placed **before** a **figure** indicates that the note represented by that figure is to have a similar accidental, e.g. :—




27.—It is not possible, within the limits of the present primer, to enter more fully into the question of the various chords, &c., described in this Chapter, nor can any attempt be here made to set forth the laws that govern their treatment. The student who desires to prosecute this most important subject can do so by referring to the author's "Practical Harmony,"* where he will find all these matters exhaustively considered.

APPENDIX A.

Table of Definitions.


Accent.—Stress or emphasis. (Chap. IV, Secs. 1 and 2.)



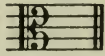
Acciaccatura.—A small note, indicated , to be played as closely as possible to the full-sized note it precedes. (Chap. XI, Sec. 17.)

Accidental.—A \flat , \sharp , \natural , \times or m occurring incidentally. (Chap. III, Secs. 7-11.)

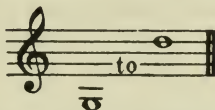
Aggréments (Fr.).—Ornaments, e.g., the turn, the mordent, etc.

Air.—Melody or tune.

Alla Breve.—A time consisting of *four* minims in a bar ($\frac{4}{2}$), the bar being consequently of the value of one breve. Often incorrectly applied to a bar of *duple* time, consisting of two minims, indicated thus :—.

Alto clef.—The C clef , or , so placed that "Middle C" occurs as the 3rd line of a staff, thus :— (Chap. II, Secs. 8 and 11.)

Alto voice.—The voice next below the treble in a choir or quartet of voices ; usually called *contralto* when sung by women. Average compass—



Appoggiatura.—A small note, placed before one of full size, and taking its own value from it. Now-a-days always incorporated in the time of the bar. (Chap. XI, Sec. 19 ; Chap. XIII, Sec. 21.)

Arpeggio.—The notes of a chord sounded in succession. (See also Chap. X, Sec. 8.)

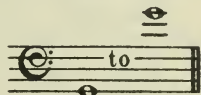
B (German).—The note B flat.

Bar.—The music comprised between two successive strongest accents. (Chap. IV, Sec. 3.)

Bar-line.—A vertical line drawn through the staff immediately before the constantly recurring strongest accent. (Chap. IV, Sec. 3.)

Baritone voice.—A voice lighter than a Bass, but fuller than a Tenor,

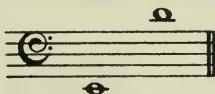
with a compass between the two, approximately—



Bass clef.—The F clef. (Chap. II, Secs. 8 and 9.)

Bass note.—The lowest note in any chord.

Bass voice.—The lowest male voice. Average compass—



Beat.—One of the main divisions of a bar, or measure. (Chap. IV, Sec. 4.)

Bémol (French)
Bemolle (Italian) } a flat ; e.g., *Fa bémol* or *Fa bémolle*, signifies F flat.

Bind.—See *Tie*.

Cadence.—The completion of a phrase, or rhythmical period. (Chap. XIII, Sec. 25.)

Chord.—Two or more notes sounded together. (Chap. XIII, Sec. 3.)

Chromatic.—Notes contrary to the key-signature, without causing modulation.

Chromatic chord.—A chord containing one or more such notes. (Chap. XIII, Sec. 19.)

Chromatic interval.—An interval found only in a chromatic scale. (Chap. IX, Sec. 14.)

Chromatic scale.—A scale proceeding entirely by semitones. (Chap. VIII.)

Chromatic semitone.—A semitone, the two notes of which bear the same letter-name, e.g., C to C#. (Chap. III, Sec. 5, foot-note.)

Clef.—A sign used to fix the absolute pitch of the notes upon a staff. (Chap. II, Secs. 7-12.)

Common Chord.—A chord, consisting of a bass-note, with its major or minor 3rd and perfect 5th. (Chap. XIII, Sec. 5.)

Common Time.—A term sometimes used to denote either Duple or Quadruple time.

Compound interval.—An interval greater than an octave (e.g., a 9th, 10th, &c.). (Chap. IX, Sec. 13.)

Compound times.—Times, in which each beat of a bar is divisible by three, as opposed to *simple times*, in which each beat is divisible by two. (Chap. IV, Secs. 9 and 10.)

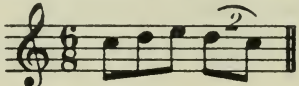
Concord.—A combination of notes satisfactory *in itself*, needing no other to precede or follow it.

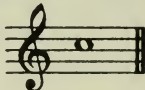
Consonant, or Concordant intervals.—The intervals of major and minor 3rd and 6th, and all perfect intervals (except occasionally the perfect 4th). (Chap. IX, Sec. 12 ; Chap. XIII, Sec. 13, foot-note.)

Contralto voice.—See *Alto*.

Counterpoint.—The art of combining separate melodies, or of making vocal or instrumental parts move melodiously one against another.

Couplet.—A group of two notes, to be performed in the time of *three* of the same quality, indicated by the figure 2 placed over or under the

group, thus :—  (See Addenda, page 84.)

Diapason normal.—The standard of pitch, known as *French pitch*, regulated on the principle of  representing a sound of 522 vibrations per second.

Diatonic.—Notes according to the key-signature. *N.B.*—The major 6th and 7th of a minor scale are, moreover, diatonic, although it is necessary to indicate them by the use of accidentals.

Diatonic chord.—A chord containing only diatonic notes.

Diatonic interval.—An interval that can be found in any major or minor scale. (Chap. IX, Sec. 14.)

Diatonic scale.—A scale proceeding by tones and semitones, in a definite order. (Chaps. VI and VII.)

Diatonic semitone.—A semitone, the two notes of which bear different letter-names, e.g., C to D flat. (Chap. III, Sec. 5, foot-note.)

Dièse (French) } a sharp ; e.g., *Fa dièse* or *Fa diesis* signifies F sharp.
Diesis (Italian) }

Discord.—A combination of notes incomplete *in itself* and requiring some other to follow (and sometimes to precede) it.

Dissonant or discordant intervals.—All intervals of 2nd, 7th and 9th, and all diminished and augmented intervals. (Chap. IX, Sec. 12.)

Divisi.—A term used in writing for the bowed-instruments in an orchestra, indicating the *division* of any particular section (e.g., first violins, second violins, &c.) into two or more separate parts.

Do.—The Italian vocal syllable used to denote C.

Dominant.—The name given to the 5th degree of a diatonic scale. (Chap. VI, Sec. 9.)

Double-bar.—Two vertical lines drawn through the staff to indicate the termination of a section of a movement. (Chap. IV, Sec. 3, foot-note.)

Duple.—A term used to describe the species of time containing two beats, or divisions, in each bar. (Chap. IV, Sec. 5.)

Dur.—The German term for a major key, e.g., *C dur* signifies C major.

Enharmonic.—Change of name without change of pitch; e.g., D♯, E♭ and F♭ are the *enharmonic* of one another.

Es (German).—A syllable affixed to the letter-name of any note, to signify the flattening of that note. (See page 83.)

Extended mordent.—A lower mordent with two alternations instead of one. (Chap. XI, Sec. 21.) See *Mordent*.

Extreme parts.—The highest and lowest notes of a chord; e.g., those sung by the Soprano and Bass voices.

Fa.—The Italian vocal syllable used to denote F.

Full score.—The parts for an orchestra (with or without voices) placed one above another on the same page.

Gamut.—The scale.

Glissando.—Gliding; applied to the rapid sliding of the fingers over several keys in Pianoforte playing, or over several strings in Harp playing.

Graces.—Musical ornaments. (Chap. XI.)

Great staff.—A staff of eleven lines, including, roughly, the average compass of both male and female voices. (Chap. II, Secs. 2-5.)

H (German).—The note B natural.

Harmonics.—Sounds produced by the fact of a string or column of air vibrating in its fractional parts, as well as in its whole length.

Harmony.—Sounds in combination.

Inflection.—The alteration of the pitch of a note by the addition of an accidental. (Chap. III.)

Interval.—The difference in pitch between two sounds. (Chap. IX.)

Inversion :—

(i.) *Of an interval*; the changing of the relative position of the two notes. (Chap. IX, Secs. 15-18.)

(ii.) *Of a chord*; the placing of any note of the chord, other than its root, in the bass or lowest part. (Chap. XIII, Sec. 9.)

Is (German).—A syllable affixed to the letter-name of any note, to signify the sharpening of that note. (See page 83.)

Key.—A set of notes (diatonic and chromatic) having a definite relation to a particular starting-point, or *key-note* (q.v.).

Key-note.—The note forming the starting point of any scale. (Chap. VI, Sec. 1.)

Key-signature.—The sharps or flats necessary to the key of a composition, placed immediately after the clef, in their proper order. (Chap. VI, Sec. 8.)

La.—The Italian vocal syllable used to denote A.

Leading-note.—The 7th degree of a diatonic scale, so called from the fact that it leads the ear to expect the tonic or key-note, from which it stands at the distance of a semitone. (Chap. VI, Sec. 9.)

Ledger lines.—Short lines drawn above or below the staff. (Chap. II, Sec. 10.)

Maggiore (Italian) }
Majeur (French) } major.

Major.—(i.) As applied to intervals ; a term used to qualify the intervals of 2nd, 3rd, 6th, 7th and 9th. (Chap. IX, Secs. 5 and 6.)

(ii.) As applied to chords ; a common chord having a major (or greater) 3rd. (Chap. XIII, Secs. 5 and 6.)

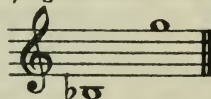
(iii.) As applied to scales ; a scale having its semitones occurring between the 3rd and 4th, and 7th and 8th degrees. (Chap. VI.)

Measure.—The music comprised between two bar-lines. (See *Bar.*)

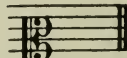
Mediant.—The name given to the third degree of a diatonic scale. (Chap. VI, Sec. 9.)

Melody.—Single sounds in succession. Also used as synonymous with tune.

Mezzo-Soprano.—A voice lying between the soprano and contralto in pitch. Average compass—



Mezzo-Soprano Clef.—The C clef  or , so placed that

"Middle C" occurs as the 2nd line of a staff, thus :— 

N.B.—This clef is now obsolete.

Mi.—The Italian vocal syllable used to denote E.

Middle C.—The C nearest to the middle of the Pianoforte keyboard ; a note capable of being sounded by all the various voices, male and female. (Chap. II, Sec. 2, &c.)

Mineur (French) }
Minore (Italian) } minor.

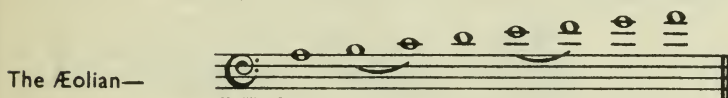
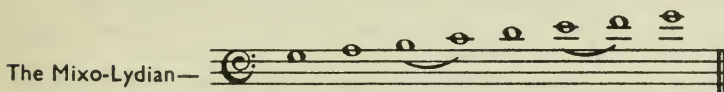
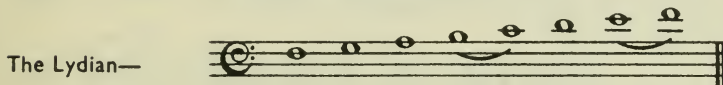
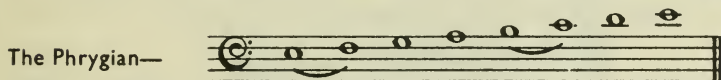
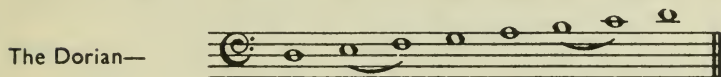
Minor.—(i.) As applied to intervals ; a term used to qualify the intervals of 2nd, 3rd, 6th, 7th and 9th. (Chap. IX, Sec. 7.) See also *Major*.

(ii.) As applied to chords ; a common chord having a minor (or lesser) third. (Chap. XIII, Secs. 5 and 6.)

(iii.) As applied to scales ; a scale having its semitones occurring between the 2nd and 3rd, 5th and 6th, 7th and 8th degrees. This is called the *Harmonic* minor scale. The *Melodic* minor scale is somewhat differently formed. (Chap. VII.)

Mode.—(i.) A term used to denote a particular aspect of a key, e.g., its *major mode*, or its *minor mode*. Thus C major and C minor are the two opposite *modes* of the key of C.

(ii.) An old Ecclesiastical scale. The chief of such modes, in all of which the semitones occurred between different degrees, were—



(For further information on the Ecclesiastical scales, the student is recommended to the excellent article by the late Mr. W. S. Rockstro, in Grove's "Dictionary of Music and Musicians.")

Modulation.—Change of key. (Chap. XIII, Sec. 18.)

Moll.—The German term for a minor key; e.g., *C moll* signifies C. minor.

Mordent.—A "grace" or ornament, consisting of a single rapid alternation of a written note and the note next above it, alphabetically. (Chap. XI, Secs. 10 and 11.)

Note.—A sign used to denote relative duration of sound. (Chap. I.)

Octave.—(i.) The interval of an 8th. (Chap. IX, Secs. 2, 5, and 6.)

(ii.) The reproduction of any note at a higher or lower pitch. (Chap. II, Sec. 4.)

(iii.) The sounds contained between any note and such reproduction.

Open Score.—The voice-parts of a chorus, &c., written on separate staves, one above another.

Opus (generally abbreviated thus—*Op.*) ; lit., a work. A term used to denote the *number* of a composition of any particular composer, in order of publication.

Partition (Fr.) } A score. (See Score.)
Partitur (Germ.) }

Perfect.—A term used to qualify the intervals of unison, 4th, 5th and 8th. (Chap. IX, Secs. 5 and 6.)

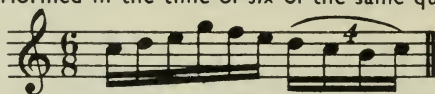
Phrase.—A musical period (often consisting of four bars).

Pitch.—The height or depth of a sound.

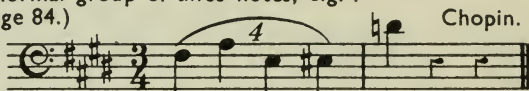
Pulse.—The measured "throb" of the music.

Quadruple.—A term used to describe the species of time containing four beats, or divisions, in each bar. (Chap. IV, Sec. 5.)

Quadruplet.—A group of four notes, usually met with in compound times, to be performed in the time of six of the same quality, thus :—

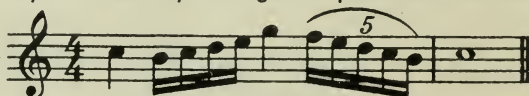


The quadruplet is occasionally somewhat inaccurately treated as being equivalent to a normal group of three notes, e.g. :—
(See Addenda, page 84.)



Quintuple.—A rare kind of time, having five beats, or divisions in each bar. (Chap. IV, Sec. 4, foot-note.)

Quintuplet.—A group of five notes, to be performed in the time of four of the same quality, indicated by the figure 5 placed over or under the group ; thus :—



Re.—The Italian vocal syllable used to denote D.

Related keys.—Keys having the greatest number of chords in common.

Relative Major } A major scale and a minor scale with the same key-
Relative Minor } signature. (Chap. VII, Sec. 6.)

Resolution.—The fixed progression of a discord

Rest.—A sign used to denote silence for a definite period. (Chap. I, Sec. 8.)

Rhythm.—The vital principle in music by means of which sounds are felt to "progress" to certain points of culmination or of repose, thus forming intelligible periods (such as phrases, sentences, &c.).

Root.—The note from which a chord is derived, and from which it takes its name.

Scale.—An alphabetical succession of sounds having reference to some particular starting-point, or key-note. (Chaps. VI, VII and VIII.)

Score.—The parts for the various voices or instruments in a composition, placed one above another on the same page.

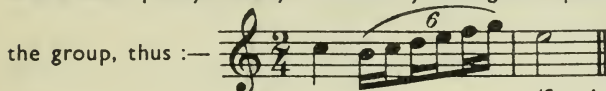
Semitone.—Half-a-tone. The smallest interval on the Pianoforte or Organ Keyboard. (Chap. III, Sec. 3.)

Sentence.—A musical period (most frequently ending with a perfect cadence) consisting of two or more phrases.

Septolet.—A group of seven notes to be performed in the time of (a) four, or (b) six, of the same quality, usually indicated by the figure 7 placed over or under the group, thus :—



Sextolet.—A group of six notes to be performed in the time of *four* of the same quality, usually indicated by the figure 6 placed over or under



(See Addenda, page 84.)

Shake.—The rapid and regular alternation of a written note with the note next above it alphabetically. (Chap. XI, Secs. 4-9 ; also Sec. 22.)

Short score.—The parts for a chorus, &c., arranged upon two staves, as for the Pianoforte.

Si.—The Italian vocal syllable used to denote B.

Signature.—See *Key-signature* and *Time-signature*.

Simple Interval.—Any interval within the octave. (Chap. IX, Sec. 13.)

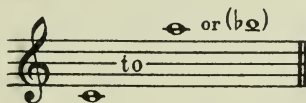
Simple Times.—Times in which each beat of a bar is divisible by two. (Chap. IV, Sec. 8.)

Slur.—A sign used to indicate *smoothness* of performance. (Chap. X, Sec. 9, and foot-note.)

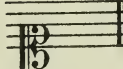
Sol.—The Italian vocal syllable used to denote G.

Sol-Fa.—The use of the Italian syllables—Do, re, mi, fa, sol, la, si, in singing the notes of the scale.

Soprano.—The highest female voice. Average compass—



Soprano Clef.—The C clef , or , so placed that "Middle C" occurs as the 1st line of a staff, thus :—

 (Chap. II, Secs. 8 and 11.)

Staff (or Stave).—The lines and spaces used to fix the *relative* pitch of sounds. (Chap. II.)

Subdominant.—The name given to the 4th degree of a diatonic scale. (Chap. VI, Sec. 9.)

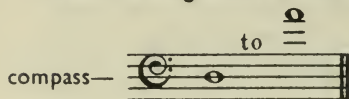
Submediant.—The name given to the 6th degree of a diatonic scale. (Chap. VI, Sec. 9.)



Supertonic.—The name given to the 2nd degree of a diatonic scale. (Chap. VI, Sec. 9.)

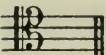
Syncopation.—A disturbance of the normal accent of a bar. (Chap. V, Sec. 8.)

Tempo (Italian).—The speed of a composition.



Tenor.—A high male voice of a comparatively light quality. Average



Tenor Clef.—The C clef , or , so placed that "Middle C" occurs as the 4th line of a staff, thus :—

 (Chap. II, Secs. 8 and 11.)

Tetrachord.—A series of four notes in alphabetical order, most frequently consisting of two tones and a semitone. (Chap. VI, Sec. 3.)

Tie.—A curved line,  or , connecting two or more notes of the same letter-name and *quality* (as sharp, flat, natural, &c.), indicating that the first of such notes only is to be struck, and then prolonged by the value of the note or notes with which it is so connected. (Chap. X, Sec. 10.)

Timbre (Fr.).—Quality of tone. (Introduction, Sec. 4.)

Time.—The grouping of sounds into sets by means of accent. (Chap. IV.)

Time-signature.—Figures in fractional form (thus $\frac{2}{4}$, $\frac{3}{8}$, $\frac{12}{16}$, etc.) placed at the commencement of a piece to indicate the position of the accents, i.e., the *time* in which the piece is written. (Chap. IV, Secs. 6 to 10.)

Tonic.—The name given to the 1st degree, or keynote, of a scale. (Chap. VI, Sec. 9.)

Tonic Major.— } A Major scale and a Minor scale, beginning upon the
Tonic Minor.— } same tonic, or key note. (Chap. VII, Sec. 9.)

Treble.—Another name for the soprano voice. (See *Soprano*.)

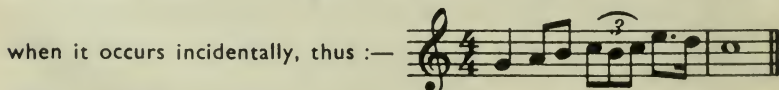
Treble Clef.—The G clef. (Chap. II, Secs. 8 and 9.)

Triad.—A chord consisting of a bass note, with its major or minor 3rd, and diminished, perfect, or augmented 5th. (Chap. XIII, Sec. 3.)

Trill.—Another name for a shake. (See *Shake*.)

Triple.—A term used to describe the species of time containing three beats, or divisions, in each bar. (Chap. IV, Sec. 5.)

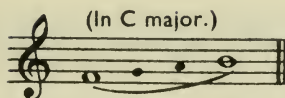
Triplet.—A group of three equal notes performed in the time of two of the same quality. The figure 3 is usually placed over such a group,



(Chap. IV, Sec. 9.)

(See also Addenda, page 84.)

Tritone.—(lit., three tones) the step from the 4th to the 7th degree of a diatonic scale. e.g. :—



forming the interval of augmented 4th.

Turn.—A musical ornament, consisting of four notes, played or sung after a principal, written, note. (Chap. XI, Secs. 12-16.)

Tutti.—All. A term used, principally in orchestral music, to denote that the whole body of performers is to play.

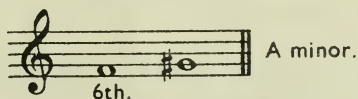
Unison.—The same sound produced by two or more voices or instruments. (Chap. IX, Sec. 2.) N.B.—Male and female voices, when they sing in octaves, are described (inaccurately) as singing in *unison*.

Vocal Score.—Vocal parts ranged one above another on the same page.

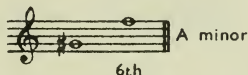
APPENDIX B.

Rules for finding the number of Keys in which a given Interval may occur.

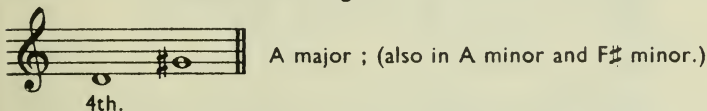
1.—The interval of **augmented 2nd** occurs *only* in that minor scale of which its *lower* note is the **6th** degree, e.g. :—



In the case of a **diminished 7th** (the inversion of an augmented 2nd) it will be necessary merely to substitute "upper" for "lower" in the above rule, e.g. :—



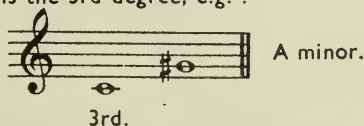
2.—The interval of **augmented 4th** occurs in that major scale of which its lower note is the 4th degree ; also in the Tonic minor and the Relative minor of that scale, e.g. :—



A major ; (also in A minor and F# minor.)

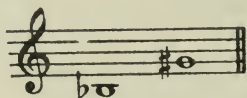
In the case of the inversion of this interval, viz., the **diminished 5th**, again substitute "upper" for "lower."

3.—The interval of **augmented 5th** occurs *only* in that minor scale of which its *lower* note is the 3rd degree, e.g. :—



Here again, in the case of a **diminished 4th** (the inversion of the above interval) substitute "upper" for "lower."

4.—The interval of **augmented 6th** occurs in those *chromatic scales* of which its *lower* note is either the Minor 2nd or Minor 6th degree, e.g. :—

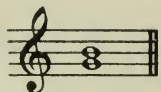


CHROMATIC SCALES OF A AND D.
(Chap. IX, Sec. 14.)

In the case of the inversion of this interval, viz., the **diminished 3rd**, again substitute "upper" for "lower."

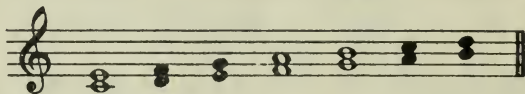
5.—The intervals of **major and minor 2nds** and **3rds** (with their inversions, minor and major 7ths and 6ths), and the **perfect 4th** (with its inversion, the perfect 5th), occur in too many keys for rules such as those given above to be of use. The following is the best plan to find the keys in which any one of these intervals occurs :—

Question. In what keys can the interval

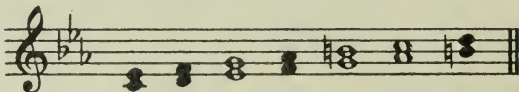


(major 3rd)

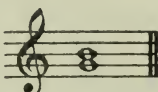
If we write a third upon each degree of a major scale, thus :—



we find that major 3rds occur upon the 1st, 4th, and 5th degrees ; therefore, the interval in question could, manifestly, occur on the 1st degree of a major scale, viz., G major ; on the 4th degree of D major ; and on the 5th degree of C major. A similar succession of 3rds built upon a minor scale, thus :—



will shew us that major 3rds occur upon the 3rd, 5th, and 6th degrees ; consequently, the interval in question could occur on the 3rd degree of a minor scale, viz., E minor ; on the 5th degree of C minor ; and the 6th degree of B minor.

Thus, the interval  will be found in the keys

of G, D, and C major ; and E, C, and B minor.

NOTE.—It goes without saying, after what has been stated in the preceding sections of this Chapter, that the inversion of this interval (viz., a minor 6th) must of necessity occur in the same six keys.

5.—If the interval given had been a **minor 3rd**, the tables in Sec. 4 would shew (by the black-headed notes) on which degrees minor 3rds are found, and the same process could be gone through as in the case of the major 3rd.

6.—The keys in which **2nds and 4ths** (with their inversions 7ths and 5ths) can appear, can be arrived at in precisely the same way.

ADDENDA

CHAPTER III. Sharps, Flats, &c.—

The following table will shew the names given to the various notes of the scale (with their inflections), in English, Italian, French and German.

English.	Italian.	French.	German.
<div> <div>C (natural)</div> <div>C sharp</div> <div>C flat</div> </div>	<div>Do</div> <div>Do diesis</div> <div>Do bemolle</div>	<div>Ut</div> <div>Ut dièse</div> <div>Ut bémol</div>	<div>C</div> <div>Cis</div> <div>Ces</div>
<div> <div>D</div> <div>D sharp</div> <div>D flat</div> </div>	<div>Re</div> <div>Re diesis</div> <div>Re bemolle</div>	<div>Re</div> <div>Re dièse</div> <div>Re bémol</div>	<div>D</div> <div>Dis</div> <div>Des</div>
<div> <div>E</div> <div>E sharp</div> <div>E flat</div> </div>	<div>Mi</div> <div>Mi diesis</div> <div>Mi bemolle</div>	<div>Mi</div> <div>Mi dièse</div> <div>Mi bémol</div>	<div>E</div> <div>Eis</div> <div>Es</div>
<div> <div>F</div> <div>F sharp</div> <div>F flat</div> </div>	<div>Fa</div> <div>Fa diesis</div> <div>Fa bemolle</div>	<div>Fa</div> <div>Fa dièse</div> <div>Fa bémol</div>	<div>F</div> <div>Fis</div> <div>Fes</div>
<div> <div>G</div> <div>G sharp</div> <div>G flat</div> </div>	<div>Sol</div> <div>Sol diesis</div> <div>Sol bemolle</div>	<div>Sol</div> <div>Sol dièse</div> <div>Sol bémol</div>	<div>G</div> <div>Gis</div> <div>Ges</div>
<div> <div>A</div> <div>A sharp</div> <div>A flat</div> </div>	<div>La</div> <div>La diesis</div> <div>La bemolle</div>	<div>La</div> <div>La dièse</div> <div>La bémol</div>	<div>A</div> <div>Ais</div> <div>As</div>
<div> <div>B</div> <div>B sharp</div> <div>B flat</div> </div>	<div>Si</div> <div>Si diesis</div> <div>Si bemolle</div>	<div>Si</div> <div>Si dièse</div> <div>Si bémol</div>	<div>H</div> <div>His</div> <div>B</div>

CHAPTER VI. Scales—Key-signatures—

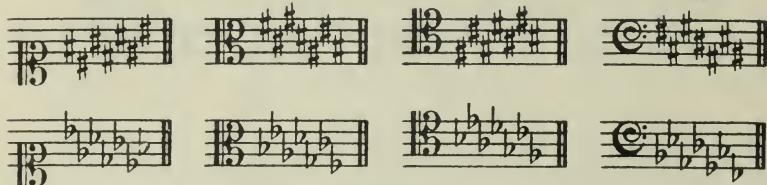
The following examples will indicate the method of placing sharps and flats on the Staff when the C and F clefs are used :—

Soprano.

Alto.

Tenor.

Bass.



Irregular Groups of Notes—

The true character of the Couplet and the Triplet, and of the Quadruplet and the Sextolet will be gathered from the following diagram :—

(normal group.)

(a)

(c) (abnormal group—
2 notes in time of 3.)

(b) (normal group.)

(d) (abnormal group—
4 notes in time of 6.)

(e) (abnormal group—
3 notes in time of 2.)

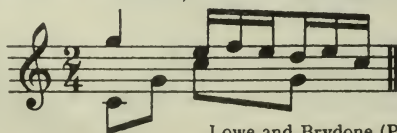
(g) (normal group.)

(f) (abnormal group—
6 notes in time of 4.)

(h) (normal group.)

It will be seen from the above examples that the Quadruplet results from the sub-division of the Couplet into smaller notes, and that the Sextolet is caused by a similar sub-division of the Triplet.

It will be evident, therefore, that the following group of six notes is not a true Sextolet, but is in reality formed by two triplets of semiquavers :—



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